Report of the
Ontario Council
of Health on

1970
Supplement No. 5

Report of the advisory supplementary

Health Care Delivery Systems

Community Health Care

Ontario Department of Health
Honourable A. B. R. Lawrence, M.C., Q.C., Minister

HEALTH CARE DELIVERY SYSTEMS

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ONTARIO

REPORT OF THE ONTARIO COUNCIL OF HEALTH

on

HEALTH CARE DELIVERY SYSTEMS

COMMUNITY HEALTH CARE

1970

SUPPLEMENT NO. 5

ONTARIO DEPARTMENT OF HEALTH
Honourable A. B. R. Lawrence, M.C., Q.C., Minister

THE ONTARIO COUNCIL OF HEALTH

The Ontario Council of Health was formed in 1966 as the senior advisory body on health matters to the Minister of Health and, through him, to the Government of Ontario. Council submits recommendations designed to support the overall thrust toward improved health services and it serves as a sentinel to ensure effective and economical employment of the human and physical elements required to provide these services.

The members of Council are selected to reflect a reasonable balance of public interest, expert knowledge, experience, and geographic distribution. In keeping with Council's ongoing role, members are appointed for three years on a rotational basis and may be reappointed once.

Council determines its work priorities through assessment of provincial health services requirements, tempered from time to time by more urgent requests. The successful completion of its assignments is dependent upon the able assistance of committees, sub-committees and task forces manned from the ample reservoir of health interest and expertise to be found in individuals throughout Ontario.

MEMBERS OF THE ONTARIO COUNCIL OF HEALTH

K. C. Charron, M.D., LL.D. (ex officio, Chairman)	Deputy Minister of Health and Chief Medical Officer
S. W. Martin, F.C.I.S., F.A.C.H.A. (ex officio, member)	Chairman, Ontario Hospital Services Commission
Miss C. Aikin, R.N., B.A., M.A.	Dean, School of Nursing, University of Western Ontario, London
R. Auld*	Executive Director, Ontario Society for Crippled Children, Toronto
E. H. Botterell, O.B.E., M.D., F.R.C.S. (C)*	Dean, Faculty of Medicine, Vice-Principal (Health Sciences), Queen's University, Kingston
E. A. Dunlop, M.P.P., O.B.E., G.M.	Managing Director, The Canadian Arthritis and Rheumatism Society
W. J. Dunn, D.D.S., F.A.C.D.	Dean, Faculty of Dentistry, University of Western Ontario, London
J. R. Evans, M.D., D.Phil. (Oxon), F.R.C.P. (C), F.A.C.P.	Dean, Faculty of Medicine, Principal, Health Sciences, McMaster University, Hamilton
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O. Hall, B.A., M.A., Ph.D.	Professor, Department of Sociology, University of Toronto
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R. I. Macdonald, B.A., M.D., C.M., F.R.C.P. (Lond.), F.R.C.P. (C), F.A.C.P.	Consultant in Medicine, Toronto
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W. R. Wensley, B.Sc.Phm., M.Sc.Phm.	Registrar, Ontario College of Pharmacy, Toronto
F. A. Wilson, Phm. B.*	Vice-President, Parke and Parke Limited, Hamilton
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* Term expired November 1970

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APPENDIX C

THE ONTARIO COUNCIL OF HEALTH IN 1970

A first "Report on the Activities of the Ontario Council of Health" was published during 1970. It consisted of a summary document with eight separate annexes containing individual committee reports and recommendations as acted upon by Council. The period covered was from Council's formation in 1966 through the calendar year 1969.

SUPPLEMENTS FOR 1970 – GENERAL

The initial report has proven useful to many individuals and groups concerned with the health care of the people of Ontario. It was therefore decided to make available the major committee reports and recommendations which were processed through Council during 1970. This was substantially a continuation of the work initiated during the first report period, relating directly to committees identified in the annexes. Therefore, it was decided to issue the new report in the form of nine separate supplements, of which this document is one. These supplements, cross-referenced to their original annexes by title, are listed below:

Supplement No. 1
Regional Organization of Health Services
Part II – A Proposed System

Supplement No. 2
Health Statistics
Part II – Implementation of a Health Statistics System

Supplement No. 3
Health Manpower
A. The Need for Family Physicians and General Practitioners for the Province of Ontario
B. Assistance for the Primary Care Physician

Supplement No. 4
Library and Information Services
Library Personnel, Manpower and Education

Supplement No. 5
Health Care Delivery Systems
Community Health Care

Supplement No. 6
Health Care Delivery Systems
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Supplement No. 7
Health Care Delivery Systems
Laboratory Systems

Supplement No. 8
Health Care Delivery Systems
Dental Care Services

Supplement No. 9
Health Care Delivery Systems
Role of Computers in the Health Field

1970 SUPPLEMENT – COMMUNITY HEALTH CARE

This report, prepared by the Sub-committee on Community Health Care, was presented to the Ontario Council of Health in June 1970.

The formation of the Health Care Delivery Systems Committee and, subsequently, the Sub-committee on Community Health Care has provided for certain features of health care to be studied from a different perspective than heretofore possible by the original committees of Council. In a subject like community health care, such matters as manpower supply, patterns of practice, and the co-ordination of participating groups and physical facilities, are considered from the point of view of a system or systems of providing health care services. It provides for another axis of examination of the problems involved in providing necessary health services.

The Sub-committee has studied three important aspects of community care: the family physician, the team of professionals involved in providing ambulatory care, and the physical resources available to them.

The reader may care to review two related documents of the Manpower Committee of Council, which appear in Supplement No. 3 of this report. These deal with the need for family physicians and the

role of the nurse practitioner. Other reports on dental care services (Supplement No. 8) and rehabilitation care services (Supplement No. 6) also deal with other community care services.

OTHER AREAS OF COUNCIL ACTIVITY

It will be noted that 1970 supplements to three annexes of the first report have not been issued – Physical Resources, Education of the Health Disciplines, and Health Research:

Physical Resources

In the original annex, the Committee reviewed the current situation and the related services in Ontario which affect physical resources; it highlighted some of the difficulties which exist with respect to the components of the present pattern and made certain recommendations. This completed Council action in this important area, at this stage.

Education of the Health Disciplines

Continued study has been carried out by the Committee. This has been directed primarily toward assessment of the educational requirements for the rehabilitation disciplines and a further report in the area of nursing education. These documents will be completed for presentation to Council in 1971.

Health Research

The Committee on Health Research has continued its work on the definition of the provincial role in health research. It has been devoting its attention particularly to such areas as the economics of health research; the co-ordination of health research programmes within the province, sponsored by both governmental and voluntary agencies; and the personnel support requirements needed to maintain a viable health research programme. It is anticipated that these matters will be completed in 1971.

The Committee has continued to provide direct advice to the Province on applications for financial assistance, through its Subcommittees on Research Grants Review and Demonstration Models.

During 1970, the Council initiated activity and is developing reports

in the following areas:

Audio Visual Systems

The Sub-committee on Audio Visual Systems began work in March, looking into provincial requirements for instructional media systems in the education of the health disciplines, health services, and public health education.

Perinatal Problems

The Sub-committee on Perinatal Problems was established in May to give consideration to problems surrounding birth and affecting either/or mother and infant, and developing proposals for improved health services in this area.

Environmental Quality

A primary Committee on Environmental Quality was set up in October to make recommendations to the government on all matters related to the quality of the human environment, with special consideration to the health and well-being of people.

Future Arrangements for Health Education

In November, Council approved the establishment of a task force to investigate the need for a new medical school/health sciences centre, giving due consideration to new approaches to health education. The relation of health education to health services and the effect of this on the community, not the projected manpower requirements alone, will provide the basis for the study.

Two other undertakings by Council should be noted:

Committee on the Healing Arts Review

A special request was made to Council in June to review the Report of the Committee on the Healing Arts. A review group was established and it reported to Council in November. It proposed certain basic principles related to the regulation and education of the health disciplines and these, as approved by Council, were submitted to the Minister of Health.

Conference on Co-operation in the Provision of Health Services

In April, Council took an active part in a Conference on Co-operation in the Provision of Health Services, sponsored by provincial bodies representing the various health disciplines, consumers, and the Department of Health. In the public interest, it is Council's policy to consult freely with representatives of health professions, related organizations, and others who share the common bond of seeking the best possible health services for the people of Ontario. This process also occurs as part of the work of the committees of Council.

MEMBERS OF COMMITTEE ON HEALTH CARE DELIVERY SYSTEMS

Dr. K. C. Charron, Chairman	Deputy Minister of Health
Miss C. Aikin	Dean, School of Nursing, The University of Western Ontario
Mr. R. Auld	Executive Director, Ontario Society for Crippled Children
Dr. E. H. Botterell	Dean, Faculty of Medicine, Queen's University
Dr. Carol Buck	Professor and Chairman, Department of Community Medicine, The University of Western Ontario
Dr. W. J. Dunn	Dean, Faculty of Dentistry, The University of Western Ontario
Dr. T. L. Jones	Ontario Veterinary College, University of Guelph
Dr. R. I. Macdonald	Consultant in Medicine, Toronto
Mr. S. W. Martin	Chairman, Ontario Hospital Services Commission
Dr. J. F. Mustard	Professor of Pathology, McMaster University
Mr. G. W. Phelps	Orillia. Formerly President, Ontario Hospital Association
Mr. F. A. Wilson	Vice-President, Parke and Parke Limited

MEMBERS OF THE SUB-COMMITTEE ON COMMUNITY HEALTH CARE

Dr. F. B. Fallis, Chairman	Department of Family and Community Medicine, University of Toronto
Dr. R. M. Aldis	Regional Medical Officer, Local Health Service, Ontario Department of Health, London
Dr. Robin F. Badgley	Professor and Director, Department of Behavioural Science, University of Toronto
Miss L. Barr	Executive Director, Registered Nurses' Association of Ontario, Toronto
Dr. John J. Day	Professor of Preventive Medicine, University of Ottawa, Ottawa
Dr. John Hay	Chairman, Department of Family Medicine, McMaster University, Hamilton
Dr. A. Murray Hunt	Chairman, Graduate Studies, School of Dentistry, University of Toronto
Dr. Hollister King	Physician, Midland
Dr. Ian McWhinney	Professor of Family Medicine, University of Western Ontario, London
Dr. Reginald Perkin	Department of Family and Community Medicine, University of Toronto

Dr. Allan M. Torrie	Physician, Kenora
Mrs. D. Dudley, Secretary	*Ontario Council of Health Secretariat*

ACKNOWLEDGEMENTS

Technical support in the preparation of this report was provided through the auspices of the Research and Planning Branch of the Ontario Department of Health. Under Dr. G. W. Reid, Director, the following staff members worked with the Sub-committee:

Dr. S. R. Lang	Research and Planning Officer (Medical)
Dr. M. Shackleton	Assistant Research and Planning Officer (Medical)

Special presentations were received from:

Mr. D. G. Emslie	Commissioner of City Development, City of Toronto
Dr. J. E. F. Hastings	Professor of Health Administration, School of Hygiene, University of Toronto
Dr. T. H. Tulchinsky	Medical Director, St. Catharines and District Community Group Health Foundation

Recommendations

RECOMMENDATIONS
Supplement No. 5
HEALTH CARE DELIVERY SYSTEMS
COMMUNITY HEALTH CARE

COUNCIL ACTION

In considering the June 1970 report of the Sub-committee on Community Health Care, the Ontario Council of Health dealt in detail with Recommendations 1-30 and, except where indicated otherwise by footnote, approved these recommendations. The Ontario Council of Health accepted the principles associated with Recommendations 31-93.

RECOMMENDATIONS

Supply of Primary Physicians

1. THAT, beyond normal increments to take care of population and immigration fluctuations, the output of medical schools in Ontario ought not to be markedly increased until the effects of new patterns of health care delivery have been developed and adequately assessed.*

2. THAT immigrant physicians be welcomed, assessed, trained and placed as at present in Ontario, without active recruitment abroad and without major change in licensure requirements, until rational objectives for the delivery of health care have been established.

* The Ontario Council of Health did not approve Recommendation 1, which was not consistent with an earlier recommendation accepted by Council.

3. THAT a main thrust of effort by government and profession be in the direction of supplying the necessary teachers and facilities, and for supporting and improving programmes already planned.

4. THAT the present ratio of practising specialists to general practitioners, which for Ontario is approximately 45 to 55, be maintained.

5. THAT, in considering additional government support for educational programmes for the health occupations, first consideration be given to those occupations in which relative public demand and need can be demonstrated.

6. THAT detailed studies be made on a regional basis in Ontario to identify items where resource support is needed to bring up standards of progressive patient care to an agreed baseline for the province.

7. THAT active support be given for projects likely to improve the availability of primary care from existing health workers. For example, for the production and distribution of directories of primary physicians, and for the wider dissemination to the public and the profession of working descriptions of services already available from public health and social welfare sources, and from agencies offering patient assistance in such fields as chronic and venereal disease, rare diseases, care of the aged, and handicapped persons in general. This might take the form of a community health resources inventory.

8. THAT support for printing, staff and other expenses be given to any reasonable plans which encourage local, district or regional arrangements for the management of urgent calls or other requests for primary medical service from patients requiring assistance. This might be assisted by a regional or district planning council, where they exist.

9. THAT support be given to studies of factors influencing continuity of patient care: e.g., patient mobility; use of the hospital emergency; access to, and transfer of records.

10. THAT continued emphasis be put on resource support for ambulatory care facilities. Under certain circumstances this may include construction costs of purpose-designed district premises. (See Recommendation 92.)

11. THAT medical officers of health of Ontario be more actively encouraged to develop working liaison with practising primary physicians on an effective, periodic and continuing collaboration in areas of common responsibility in terms of progressive patient care.

12. THAT the delivery of primary care in Ontario should be developed on the basis of an emphasis on the concept of care being supplied from the pool of appropriately trained unrestricted primary physicians.

13. THAT extra financial and other support should be made available to practising family physicians endeavouring to introduce features of extra effectiveness into their work. (See Recommendations 61, 92, 93.)

14. THAT financial and other support should be made available to research teams set up in association with existing departments of family medicine and community medicine to carry out coordinated studies in health care.

15. THAT a contract be made with a scholar in the field of health care to survey the literature on family and general practice and community medicine with a view to developing criteria for the evaluation of quality of care.*

16. THAT financial support be extended to approved training programmes in family medicine in Ontario.

17. THAT funds be made available for the development of teaching facilities in university designated teaching practices which may be some distance from the university or from affiliated hospitals.

18. THAT funds be made available for the adequate reimbursement of practising family physicians devoting part of their time to teaching or other related university approved activities.

19. THAT funds be made available for the payment of trainees working in teaching practices or other preceptorship arrangements approved by an Ontario university or by the provincial chapter of the College of Family Physicians of Canada.

* The Ontario Council of Health supported the principle of developing criteria for evaluating the quality of care, but did not approve Recommendation 15, since it was felt that a survey of literature would not result in the desired answers.

20. THAT workshops or conferences convened to study and improve the teaching of family medicine in Ontario should continue to receive financial and other resource support from the Ontario Department of Health if requested.

21. THAT the Ontario College of Physicians and Surgeons be requested to initiate amendments to the requirements for the licence to practise medicine in Ontario so that specific training for family medicine is included in the trainee's programme during each of the two years immediately prior to the granting of a licence to engage in general or family practice.*

22. THAT each of the provincial medical schools be requested to relate their curriculum planning in family medicine to the specific patient needs and practice patterns of the areas served by their health sciences centre, and that consideration also be given to the licensing requirements as they relate to family practice.

23. THAT support be given to further studies into factors influencing career choices among physicians.

24. THAT support be given to further studies examining the workload of general practitioners and family physicians in various parts of Ontario with a view to developing specific recommendations for improved social satisfactions and facilities for keeping up-to-date, if overwork is in fact shown to exist.

25. THAT specific training for family medicine be available at all levels of medical education in Ontario.

26. THAT a suitable level of specific training in family and community medicine be required and competence demonstrated before the M.D. degree is granted by any university in Ontario.**

27. THAT, after the M.D. degree is granted, specific additional training in family medicine be required and competence demonstrated before a general licence to practise medicine outside of hospitals be issued by the Ontario College of Physicians and Surgeons.

* The Ontario Council of Health received Recommendation 21 and deferred it for further consideration.

** The Ontario Council of Health reserved judgement on Recommendation 26 since the implications of this recommendation would impinge on the responsibility of the universities.

28. THAT the College of Family Physicians of Canada be encouraged in its efforts to describe, assess, and improve standards of training in family medicine.

29. THAT mechanisms be developed to encourage and enable practising family physicians to gain access to continuing education.

30. THAT support be given to studies investigating the advisability of periodic relicensure or recertification in family medicine. This principle could be applied to other specialties as well.

31. THAT a continuing survey be made, with the assistance of the College of Physicians and Surgeons of Ontario, the Ontario Medical Association, and Regional Medical Officers of Health, to identify female physicians who might be encouraged to increase their professional activities and in particular who might be available for the delivery of primary care.

32. THAT female physicians, identified in the above survey, should, at their request, be provided with all reasonable practical assistance to return to full- or part-time professional duties.

33. THAT divisions of postgraduate medical education be requested to mount special refresher courses for female physicians, and also male physicians who wish to return to practice after an interval away. Under university auspices, health resources funds should be made available to pay family physicians and other physicians willing to act as preceptors in retraining projects.

34. THAT a critical baseline evaluation be made of research already undertaken in Canada and elsewhere, in order to identify key concepts in the delivery of primary care. (See also Recommendation 15.)

35. THAT the Ontario Department of Health, in co-operation with the Ontario Medical Association, the College of Physicians and Surgeons of Ontario, the Ontario Chapter of the College of Family Physicians of Canada, O.H.S.I.P., O.H.S.C., and others concerned, sponsor and give wide circulation to a compilation of existing census-type information on the ecological, demographic and social characteristics of physicians practising in Ontario, to include such data as age, professional profile, migration trends of patients and physicians, "under-doctored" areas, and physician/population ratios.

36. THAT resource support be made available to encourage the establishment of several types of co-ordinated research programmes, within academic family practice units and other departments, to explore in the field such key issues as factors influencing preferences for practice site, career objectives, and issues in the transfer of professional activities from one health worker to another.

37. THAT a practical policy be developed for making financial and other resource support available to practising family physicians and others requiring help in the planning, execution and reporting of research projects in primary care mounted on a small scale.

38. THAT further study, of reports in the literature and of operating practices, be undertaken in order to define more clearly the tasks which must be performed in the delivery of health care.

39. THAT further studies be supported to compare the effectiveness and acceptability of the performance of these tasks by differing arrangements of primary physicians, specialists, other health workers, workers from other than the health professions, and machine-assisted operations.

40. THAT continuing study be made of the specific factors which motivate physicians and other health personnel to provide service in underserviced areas. That the Government of Ontario mount a series of alternative proposals seeking to increase the incentives for physicians to work in underserviced areas.

41. THAT, in addition to financial incentives, the following be specifically assessed: improved or subsidized housing, improved professional supportive services, improved or guaranteed locum support not only for vacations of reasonable lengths but also for postgraduate training.

42. THAT any study of incentives acknowledge that health care delivery cannot reach its potential in isolation and physicians are influenced by the degree to which the level of family health, in fact, can be improved. It is essential that underserviced areas be assessed as to the provision of institutional care, including accessibility to a general hospital, social and family services, educational and employment opportunities, and the citizens' interest in service clubs and agencies involved in supplementing

health and social measures in the community.

43. THAT all seriously underserviced areas in Ontario be identified, and that each of the health sciences centres and other regional centres be requested to take a special interest in and responsibility for these areas.

44. THAT, in consultation with the Ontario Chapter of the College of Family Physicians of Canada and the OMA sections concerned, each of the health sciences centres request those in their medical faculties responsible for postgraduate and continuing education to offer specific individual assistance to physicians, dentists, nurses, and other health professionals practising in underserviced areas.

45. THAT, within underserviced areas, study be made of alternative forms of practice arrangements, e.g., solo practice, partnership, group practice, or others, to determine whether any particular form of practice or organization has special advantage in terms of durability of organization, satisfaction of physicians and patients, and cost effectiveness.

46. THAT continued government support be made available for improvement in the transportation of patients, primary physicians, specialists, other health workers, and the families of all of the above, to and from isolated areas.

47. THAT similar government support continue to be extended for the improvement of communications and the testing of new facilities for the rapid transfer of patient data of all kinds, among all personnel responsible for health care.

48. THAT financial and other resource support be made available for programmes sponsored by the health sciences centres in Ontario under which interns and residents may be assigned to underserviced areas for the provision of care.

49. THAT financial and other resource support continue to be made available to physicians and other professional health workers organizing or sponsoring arrangements for the delivery of health care to underserviced areas of Ontario.

50. THAT a study be undertaken of the nature of the obligation of both patient and doctor in common situations across the range of

progressive patient care, with special emphasis on questions relating to emergency and urgent call services, continuity of care, limitations of primary care by specialists, entitlement to highly specialized services, and service to the aged and chronically ill.

51. THAT each of the principal representative bodies of organized medicine in Ontario be requested to supply a brief, outlining suggestions as to its role in the improvement of community health care. Consideration should be given to making health resource support available for this purpose.

52. THAT, in the assignment of new financial and other health resource support to community practices, whether organized on a solo or group arrangement, preference be given to practices in which a formal mechanism exists for periodic consultation between those responsible for the practice, on the one hand, and, on the other, representatives of the group of patients served, to discuss matters of common interest and mutual obligation.

53. THAT the principle be accepted in Ontario that health sciences centres and their professional health faculties will be directly involved to some extent in the delivery of primary health care in various types of community settings, often at a considerable distance from the health sciences centres themselves.

54. THAT the policies of the Government of Ontario, wherever possible, be consistent with the principle of maintaining and clarifying the obligations and responsibilities between professional health workers and their patients.

55. THAT studies into alternative methods of payment for health services, which would apply to individual practitioners as well as groups, be continued.

56. THAT, in general, the Government of Ontario encourage and support improved communication and teamwork among all professional health workers delivering primary care to a particular group of patients, or who serve together in a particular community.

57. THAT an impartial survey of studies on teamwork in the delivery of primary care be made annually by the Research and Planning Branch of the Department of Health and copies be distributed to the offices of all primary physicians, medical officers of health,

dentists, and others. This should provide impetus for teamwork at the local level.

58. THAT the Ontario Department of Health establish a consulting service to provide information and advice about community health needs. This advice would be based on studies of significant factors in the community, such as socio-economic status, geographic location, traditional expectations in health, and the location and outreach of facilities already active in the field. It would also include such factors as the percentage of children and old people, prevalence of alcoholism, drug problems, and juvenile delinquency, and the numbers of the chronically ill. The consulting service should be available to individuals and groups, including physicians setting up practice who are engaged in planning community health services.

59. THAT all district medical officers of health in Ontario be requested to list for their own district the physicians' offices, clinics, hospitals and other institutions offering direct primary health care to the public, with a view to developing direct liaison with them on a regular basis in areas of common concern and obligation.

60. THAT financial and other resource support be made available as a general rule to combined programmes put forward by medical officers of health and practising primary physicians employing one or more full-time registered nurses in their offices.

61. THAT the Government of Ontario consider the advisability of a direct subsidy to practising primary physicians in whose offices or clinics a fully qualified registered nurse is directly available for patient care.

62. THAT a committee, on which the Ontario Medical Association, the Ontario College of Physicians and Surgeons, the Ontario Chapter of the College of Family Physicians of Canada, the College of Nurses of Ontario and the Registered Nurses' Association of Ontario, and the insurance carriers, are represented, be requested to develop a list of clinical and other community health patient care services which, when rendered by a registered nurse, would be paid for by O.H.S.I.P., subject to stated contractual conditions, directly to the person assuming responsibility for such items in terms of patient care.

63. THAT the Government of Ontario actively continue present studies of the principles of grouping in health sciences education, with particular reference to closer co-operation among all health science faculties in the educational activities in any one health sciences complex.

64. THAT encouragement and, where possible, extra support be given to the training programmes for future community health professionals where the trainees receive a substantial amount of their instruction conjointly with their future co-workers. It is hoped that most of this joint instruction may take place in a community setting where primary care is being offered to individuals and families.

65. THAT a study be undertaken of the nature of the contractual obligation of doctors to their patients, in settings served by the community health team, in order to provide guidance as to the legal implications of the delegation of common primary care services and functions, by the physician or dentist, to other members of the team such as a registered nurse, the social worker, the registered nursing assistant, the registered physical and occupational therapist, and others.

66. THAT active encouragement be given to training programmes for family physicians, in which the trainees receive substantial amounts of their training in a community health setting in common with trainees for other professional roles on the health care team.

67. THAT a continuing critical survey of current developments in the definition of the role of community health team nurse be undertaken and the results widely circulated on a periodic basis to those charged with responsibility for training programmes for health professionals likely to serve on future community health teams.

68. THAT the R.N.A.O. and College of Nurses of Ontario be requested to develop as soon as possible a proposed description of the professional role of the nurse in the community health team together with suggestions for the specific preparation required to fill the role(s) described. Financial and other resource support should be made available for this purpose.

69. THAT consideration be given to the advisability of requiring that

a course in family and community nursing be required in the training of all diploma and baccalaureate nurses graduating in Ontario.

70. THAT consideration be given to rearranging the services of public health nurses engaged in primary health care so that routine contact is made by telephone or in person regularly (for example weekly) between the public health nurse and the office of every physician delivering primary care in Ontario, in order to offer assistance and convey any information or suggestions regarding current community health from the medical officer of health. Normally this personal contact would be between the public health nurse and the practice nurse or other assistant working in the doctor's office.

71. THAT, as a general rule, financial and other resource support should be made available to primary physicians expressing an interest in programmes centred on their offices in which the public health nurses employed by the medical officer of health could take part. Such support should normally include payment of a reasonable office rental for space occupied by the nurse and other reasonable expenses such as costs of publicity and clerical assistance.

72. THAT those responsible for publicly supported home care programmes in Ontario continue to improve their liaison with primary care physicians by all available means, including telephone conversations and personal meetings with the primary physician or his nurse or office assistant.

73. THAT, in those districts of Ontario where organizations of visiting bedside nurses are active, encouragement be given for them to arrange for one of their field representatives to visit the office of every physician in the district on a periodic basis to review the services available and to provide opportunity to discuss areas of mutual interest.

74. THAT, in principle, the services of a trained medical social worker should be available, on referral by primary physicians or other members of the community health team, to every citizen of Ontario.

75. THAT, in those areas of Ontario where the services of a trained medical social worker are not available, consideration be given to

the steps necessary to provide such services through the local medical officer of health or county health unit.

76. THAT, where directories of community care facilities available through social and welfare agencies have been published, the necessary financial and other resource support be made available for the free distribution of such material to every physician delivering primary care in the district concerned. For example, the publication "Community Services in Metropolitan Toronto, 1970" should be distributed without charge to every physician delivering primary care in Metropolitan Toronto.

77. THAT a study be undertaken applying the principles of health and business administration to the problems of administrative organization and operation outlined in this report relative to the development of community health teams.

78. THAT, in the area served by each health science complex, liaison be developed between the university health faculties and the community colleges in order to clarify job specifications and training programmes for health workers likely to be working on community health teams.

79. THAT, wherever feasible, training programmes for community health team workers, such as secretaries, registered nursing assistants, and receptionists, should include learning assignments to the offices of community health care teams where patient care is being given.

80. THAT, in order to increase the contribution made to community health by members of the extended community health team, consideration be given to the following proposals: joint training programmes with other professionals likely to serve on the community health team, components of training delivered in the offices of community health teams, and opportunities for joint examination of community health problems.

81. THAT wide publicity be given to the fact that financial and other resource support is available under the Ontario Health Resources Development Plan for innovations in patterns of primary care delivery.

82. THAT wide publicity be given to the principles, priorities and methods of assigning this support to those applying for it.

83. THAT consideration be given to the following priorities in assigning such support:

    (1) that a wide variety of patterns and models of community health teams should receive support;

    (2) that, since a broader chance for change in the direction of the team delivery of care resides in the physicians and other health professionals already rendering care, all reasonable requests for resource support in this area from those already in practice be given careful consideration;

    (3) that, in such consideration, practicability of introduction and the likelihood of stability of arrangements receive equal consideration with uniqueness or originality of new proposals;

    (4) that assessment of the success of proposed changes, in general, should not be the primary responsibility of the primary health professionals, but rather should be arranged co-operatively by the applicants, the committee administering the health resource development plan support, and the nearest or other appropriate health sciences complex.

84. THAT all necessary steps be taken to ensure that at least one health resources centre is located within a reasonable distance of the place of residence of every citizen in Ontario.

85. THAT a study be made of factors related to the design and surroundings of district facilities for the delivery of primary health care. The purpose of this study would be twofold:

    (1) to make such information more readily available to physicians and others trying to establish or improve a primary practice, and

    (2) to develop principles of health resource and other support which might be made generally available in the Province of Ontario to physicians and others trying to establish new practices or improve present operations in the delivery of primary care.

86. THAT a continuing study be undertaken in order to identify means by which resource support to health resources centres

could be assigned in order to bring up standards of progressive patient care to an agreed sanitary baseline for the province. (See Recommendation 6 above, and Recommendation 89 below.)

87. THAT, as far as possible, the terms and conditions set up to identify and support health resources centres be drawn up with due regard to the principle of universality. In general, the term should be such that a great number of primary practices in Ontario could be designated as health resources centres as they now stand, or with changes likely to be attainable.

88. THAT the principle be accepted that the ownership of health resources centres may reside in either the private or public sector. There are many advantages to a combination of private ownership with additional public support conditional on open continuing assessment of the nature, availability, and quality of the services.

89. THAT, in considering arrangements for the establishment of health resources centres, various alternative methods of payment of the professional staff be acceptable, having due regard to the contractual and professional obligations involved, and to the principles of universality, quality, effectiveness, and economy of service.

90. THAT municipal governments in Ontario be encouraged to develop working liaison with health resources centres, concerning problems and opportunities of mutual interest in the field of local community health and its delivery. This liaison would normally involve the local medical officer of health and the local health unit. (See also Recommendation 59 above.)

91. THAT teachers and other faculty staff from all of the health sciences complexes in Ontario be encouraged to visit, serve, assist and sponsor health resources centres throughout the region served by their health sciences complex. (See also Recommendations 43 and 44 above.)

92. THAT the Government of Ontario set a high priority on the establishment of health resources centres as described in this report.

93. THAT high priority be given to a study in which representatives of the various health professions, consumer groups, and districts

of Ontario would be consulted, in order to recommend to the Government of Ontario under what circumstances financial and other resource support from the Health Resources Development Fund be used to promote the establishment and maintenance of health resources centres as described in this report.

Report of the Sub-committee on Community Health Care

REPORT

Summary

In spite of the length of this interim report, it is based on only a few assumptions and principles. In the end, the recommendation is that considerable interim improvement in the standards and availability of primary health care might best be brought about by a policy of government encouragement rather than by massive direction on a large scale. This encouragement is based on prorating the fee-for-service above 100 per cent in underserviced areas, and on enlarging practice establishment support from the Ontario Health Resources Development Plan to apply to all quality primary care practices which could qualify as "Health Resources Centres."

One main assumption is that a very large amount of primary medical practice in Ontario will continue to be delivered by family physicians. We have therefore set out their suggested scope and training in some detail. We also believe that other methods of delivering primary care will continue and that the whole area requires broad study and specific research.

Primary physicians will be dealing with a heavy demand for their services and should be encouraged and specially trained to work with community health teams whose members should also be specially trained. We believe that the basic team in its simplest form could consist of a primary physician and the specially trained registered nurse, and that this nurse is the logical person to fulfill the role of "physician's associate."

Special suggestions are therefore made, first about the role and

training of the "practice" nurse and the "community" nurse, and then about some other team members.

In studying the team, we came to realize that its members are best described as professionals with individual functions working together, but that the concept of where and with what patients they work raises a somewhat different set of issues. A similar difficulty arises in trying to define a specific patient population when one compares persons on a list with persons living in a defined area. We have had to seek compromises for many of these issues in order to offer an interim report and initial suggested "benchmarks." It is not yet clear to what level authority can be delegated while still maintaining contractual and professional obligations. We have not dealt with the vexed question of emergency and urgent call services or with the role of the primary physician in the hospital, except in general terms likely to produce improvement. We have not come out in favour of group practice but rather have looked behind at the individual principles underlying it: co-operation for efficiency in service and premises, peer review, and teamwork among the health professionals in one centre. We have tried to build encouragement for these principles into many of our recommendations.

Thus we conclude with proposals which will encourage the "community health team" to practise from "Health Resources Centres." We hope that the various health professionals may take some of their training together, and that some of it may be on site in the health resources centres.

The proposed description, set out at the end of the report, would enable many health professionals to have their existing practices designated as health resources centres, either immediately or with minor changes. For others, more changes would be necessary, but the principles applied should be clearly defined and universally applicable to all practices. Methods of ownership and payment are not as crucial as are the quality and availability of the health care itself.

Practical support offered under conditions and standards set by an impartial accrediting body would clearly encourage the teamwork, community concern, excellence of facilities, and availability of care, which we are all so anxious to foster.

REPORT

Summary of Recommendations

PART ONE
AVAILABILITY, FUNCTION AND TRAINING OF PRIMARY PHYSICIANS

SUPPLY OF PRIMARY PHYSICIANS

		Page
1.	*THAT, beyond normal increments to take care of population and immigration fluctuations, the output of medical schools in Ontario ought not to be markedly increased until the effects of new patterns of health care delivery have been developed and adequately assessed.**	47,48
2.	*THAT immigrant physicians be welcomed, assessed, trained and placed as at present in Ontario, without active recruitment abroad and without major change in licensure requirements, until rational objectives for the delivery of health care have been established.*	47,48
3.	*THAT a main thrust of effort by government and profession be in the direction of supplying the necessary teachers and facilities, and for supporting and improving programmes already planned.*	47,48

* The Ontario Council of Health did not approve Recommendation 1, which was not consistent with an earlier recommendation accepted by Council.

Supply of Primary Physicians (cont'd) **Page**

4. *THAT the present ratio of practising specialists to general practitioners, which for Ontario is approximately 45 to 55, be maintained.* 48-50

5. *THAT, in considering additional government support for educational programmes for the health occupations, first consideration be given to those occupations in which relative public demand and need can be demonstrated.* 48-50

IMPROVEMENT OF EXISTING SERVICES

6. *THAT detailed studies be made on a regional basis in Ontario to identify items where resource support is needed to bring up standards of progressive patient care to an agreed baseline for the province.* 50

7. *THAT active support be given for projects likely to improve the availability of primary care from existing health workers. For example, for the production and distribution of directories of primary physicians, and for the wider dissemination to the public and the profession of working descriptions of services already available from public health and social welfare sources, and from agencies offering patient assistance in such fields as chronic and venereal disease, rare diseases, care of the aged, and handicapped persons in general. This might take the form of a community health resources inventory.* 50

8. *THAT support for printing, staff and other expenses be given to any reasonable plans which encourage local, district or regional arrangements for the management of urgent calls or other requests for primary medical service from patients requiring assistance. This might be assisted by a regional or district planning council, where they exist.* 50

9. *THAT support be given to studies of factors influencing continuity of patient care: e.g., patient mobility; use of the hospital emergency; access to, and transfer of records.* 50

Improvement of Existing Services (cont'd) **Page**

10. *THAT continued emphasis be put on resource support for ambulatory care facilities. Under certain circumstances this may include construction costs of purpose-designed district premises. (See Recommendation 92.)* 50

11. *THAT medical officers of health of Ontario be more actively encouraged to develop working liaison with practising primary physicians on an effective, periodic and continuing collaboration in areas of common responsibility in terms of progressive patient care.* 50

ACTIVITIES OF THE FAMILY PHYSICIAN

12. *THAT the delivery of primary care in Ontario should be developed on the basis of an emphasis on the concept of care being supplied from the pool of appropriately trained unrestricted primary physicians.* 50-54

13. *THAT extra financial and other support should be made available to practising family physicians endeavouring to introduce features of extra effectiveness into their work. (See Recommendations 61, 92, 93.)* 50-54

14. *THAT financial and other support should be made available to research teams set up in association with existing departments of family medicine and community medicine to carry out co-ordinated studies in health care.* 50-54

15. *THAT a contract be made with a scholar in the field of health care to survey the literature on family and general practice and community medicine with a view to developing criteria for the evaluation of quality of care.** 50-54

* The Ontario Council of Health supported the principle of developing criteria for evaluating the quality of care, but did not approve Recommendation 15, since it was felt that a survey of literature would not result in the desired answers.

TRAINING OF FAMILY PHYSICIANS **Page**

16. *THAT financial support be extended to approved training programmes in family medicine in Ontario.* 54,55

17. *THAT funds be made available for the development of teaching facilities in university designated teaching practices which may be some distance from the university or from affiliated hospitals.* 54,55

18. *THAT funds be made available for the adequate reimbursement of practising family physicians devoting part of their time to teaching or other related university approved activities.* 54,55

19. *THAT funds be made available for the payment of trainees working in teaching practices or other preceptorship arrangements approved by an Ontario university or by the provincial chapter of the College of Family Physicians of Canada.* 54,55

20. *THAT workshops or conferences convened to study and improve the teaching of family medicine in Ontario should continue to receive financial and other resource support from the Ontario Department of Health if requested.* 54,55

21. *THAT the Ontario College of Physicians and Surgeons be requested to initiate amendments to the requirements for the licence to practise medicine in Ontario so that specific training for family medicine is included in the trainee's programme during each of the two years immediately prior to the granting of a licence to engage in general or family practice.** 54,55

22. *THAT each of the provincial medical schools be requested to relate their curriculum planning in family medicine to the specific patient needs and practice patterns of the areas served by their health sciences centre, and that consideration also be given to the licensing requirements as they relate to family practice.* 54,55

* The Ontario Council of Health received Recommendation 21 and deferred it for further consideration.

RECRUITMENT OF FAMILY PHYSICIANS **Page**

23. *THAT support be given to further studies into factors influencing career choices among physicians.* 56-58

24. *THAT support be given to further studies examining the workload of general practitioners and family physicians in various parts of Ontario with a view to developing specific recommendations for improved social satisfactions and facilities for keeping up-to-date, if overwork is in fact shown to exist.* 56-58

25. *THAT specific training for family medicine be available at all levels of medical education in Ontario.* 56-58

26. *THAT a suitable level of specific training in family and community medicine be required and competence demonstrated before the M.D. degree is granted by any university in Ontario.** 56-58

27. *THAT, after the M.D. degree is granted, specific additional training in family medicine be required and competence demonstrated before a general licence to practise medicine outside of hospitals be issued by the Ontario College of Physicians and Surgeons.* 56-58

28. *THAT the College of Family Physicians of Canada be encouraged in its efforts to describe, assess, and improve standards of training in family medicine.* 56-58

29. *THAT mechanisms be developed to encourage and enable practising family physicians to gain access to continuing education.* 56-58

30. *THAT support be given to studies investigating the advisability of periodic relicensure or recertification in family medicine. This principle could be applied to other specialties as well.* 56-58

* The Ontario Council of Health reserved judgement on Recommendation 26, since the implications of this recommendation would impinge on the responsibility of the universities.

FEMALE PHYSICIANS **Page**

31. *THAT a continuing survey be made, with the assistance of the College of Physicians and Surgeons of Ontario, the Ontario Medical Association, and Regional Medical Officers of Health, to identify female physicians who might be encouraged to increase their professional activities and in particular who might be available for the delivery of primary care.* 58

32. *THAT female physicians, identified in the above survey, should, at their request, be provided with all reasonable practical assistance to return to full- or part-time professional duties.* 58

33. *THAT divisions of postgraduate medical education be requested to mount special refresher courses for female physicians, and also male physicians who wish to return to practice after an interval away. Under university auspices, health resources funds should be made available to pay family physicians and other physicians willing to act as preceptors in retraining projects.* 58

RESEARCH IN FAMILY PRACTICE

34. *THAT a critical baseline evaluation be made of research already undertaken in Canada and elsewhere, in order to identify key concepts in the delivery of primary care. (See also Recommendation 15.)* 59,60

35. *THAT the Ontario Department of Health, in co-operation with the Ontario Medical Association, the College of Physicians and Surgeons of Ontario, the Ontario Chapter of the College of Family Physicians of Canada, O.H.S.I.P., O.H.S.C., and others concerned, sponsor and give wide circulation to a compilation of existing census-type information on the ecological, demographic and social characteristics of physicians practising in Ontario, to include such data as age, professional profile, migration trends of patients and physicians, "under-doctored" areas, and physician/population ratios.* 59,60

Research in Family Practice (cont'd) **Page**

36. *THAT resource support be made available to encourage the establishment of several types of coordinated research programmes, within academic family practice units and other departments, to explore in the field such key issues as factors influencing preferences for practice site, career objectives, and issues in the transfer of professional activities from one health worker to another.* 59,60

37. *THAT a practical policy be developed for making financial and other resource support available to practising family physicians and others requiring help in the planning, execution and reporting of research projects in primary care mounted on a small scale.* 59,60

OTHER MEANS OF DELIVERING PRIMARY CARE

38. *THAT further study, of reports in the literature and of operating practices, be undertaken in order to define more clearly the tasks which must be performed in the delivery of health care.* 60-62

39. *THAT further studies be supported to compare the effectiveness and acceptability of the performance of these tasks by differing arrangements of primary physicians, specialists, other health workers, workers from other than the health professions, and machine-assisted operations.* 60-62

UNDERSERVICED AREAS

40. *THAT continuing study be made of the specific factors which motivate physicians and other health personnel to provide service in underserviced areas. That the Government of Ontario mount a series of alternative proposals seeking to increase the incentives for physicians to work in underserviced areas.* 62-64

41. *THAT, in addition to financial incentives, the following be specifically assessed: improved or subsidized housing, improved professional supportive services,* 62-64

Underserviced Areas (cont'd) **Page**

improved or guaranteed locum support not only for vacations of reasonable lengths but also for post-graduate training.

42. *THAT any study of incentives acknowledge that health care delivery cannot reach its potential in isolation and physicians are influenced by the degree to which the level of family health, in fact, can be improved. It is essential that underserviced areas be assessed as to the provision of institutional care, including accessibility to a general hospital, social and family services, educational and employment opportunities, and the citizens' interest in service clubs and agencies involved in supplementing health and social measures in the community.* 62-64

43. *THAT all seriously underserviced areas in Ontario be identified, and that each of the health sciences centres and other regional centres be requested to take a special interest in and responsibility for these areas.* 62-64

44. *THAT, in consultation with the Ontario Chapter of the College of Family Physicians of Canada and the OMA sections concerned, each of the health sciences centres request those in their medical faculties responsible for postgraduate and continuing education to offer specific individual assistance to physicians, dentists, nurses, and other health professionals practising in underserviced areas.* 62-64

45. *THAT, within underserviced areas, study be made of alternative forms of practice arrangements, e.g., solo practice, partnership, group practice, or others, to determine whether any particular form of practice or organization has special advantage in terms of durability of organization, satisfaction of physicians and patients, and cost effectiveness.* 62-64

46. *THAT continued government support be made available for improvement in the transportation of patients, primary physicians, specialists, other health* 62-64

Underserviced Areas (cont'd) **Page**

workers, and the families of all of the above, to and from isolated areas.

47. *THAT similar government support continue to be extended for the improvement of communications and the testing of new facilities for the rapid transfer of patient data of all kinds, among all personnel responsible for health care.* 62-64

48. *THAT financial and other resource support be made available for programmes sponsored by the health sciences centres in Ontario under which interns and residents may be assigned to underserviced areas for the provision of care.* 62-64

49. *THAT financial and other resource support continue to be made available to physicians and other professional health workers organizing or sponsoring arrangements for the delivery of health care to underserviced areas of Ontario.* 62-64

DOCTOR-PATIENT CONTRACT

50. *THAT a study be undertaken of the nature of the obligation of both patient and doctor in common situations across the range of progressive patient care, with special emphasis on questions relating to emergency and urgent call services, continuity of care, limitations of primary care by specialists, entitlement to highly specialized services, and service to the aged and chronically ill.* 64,65

COMMUNITY PRACTICE ORGANIZATION: ROLE OF PROFESSIONALS, PATIENTS, UNIVERSITIES AND GOVERNMENT

51. *THAT each of the principal representative bodies of organized medicine in Ontario be requested to supply a brief, outlining suggestions as to its role in the improvement of community health care. Consideration should be given to making health resource support available for this purpose.* 65-67

Operational Principles (cont'd) **Page**

delivering primary care to a particular group of patients, or who serve together in a particular community.

57. *THAT an impartial survey of studies on teamwork in the delivery of primary care be made annually by the Research and Planning Branch of the Department of Health and copies be distributed to the offices of all primary physicians, medical officers of health, dentists, and others. This should provide impetus for teamwork at the local level.* 69-71

58. *THAT the Ontario Department of Health establish a consulting service to provide information and advice about community health needs. This advice would be based on studies of significant factors in the community, such as socio-economic status, geographic location, traditional expectations in health, and the location and outreach of facilities already active in the field. It would also include such factors as the percentage of children and old people, prevalence of alcoholism, drug problems, and juvenile delinquency, and the numbers of the chronically ill. The consulting service should be available to individuals and groups, including physicians setting up practice, who are engaged in planning community health services.* 69-71

M.O.H. AND THE COMMUNITY HEALTH TEAM

59. *THAT all district medical officers of health in Ontario be requested to list for their own district the physicians' offices, clinics, hospitals and other institutions offering direct primary health care to the public, with a view to developing direct liaison with them on a regular basis in areas of common concern and obligation.* 72,73

60. *THAT financial and other resource support be made available as a general rule to combined programmes put forward by medical officers of health and practising primary physicians employing one or more full-time registered nurses in their offices.* 72,73

MEMBERSHIP OF THE COMMUNITY HEALTH TEAM **Page**

61. *THAT the Government of Ontario consider the advisability of a direct subsidy to practising primary physicians in whose offices or clinics a fully qualified registered nurse is directly available for patient care.* 73,74

62. *THAT a committee, on which the Ontario Medical Association, the Ontario College of Physicians and Surgeons, the Ontario Chapter of the College of Family Physicians of Canada, the College of Nurses of Ontario and the Registered Nurses' Association of Ontario, and the insurance carriers, are represented, be requested to develop a list of clinical and other community health patient care services which, when rendered by a registered nurse, would be paid for by O.H.S.I.P., subject to stated contractual conditions, directly to the person assuming responsibility for such items in terms of patient care.* 73,74

DEVELOPING THE ROLES AND TRAINING OF THE TEAM

63. *THAT the Government of Ontario actively continue present studies of the principles of grouping in health sciences education, with particular reference to closer co-operation among all health science faculties in the educational activities in any one health sciences complex.* 74,75

64. *THAT encouragement and, where possible, extra support be given to the training programmes for future community health professionals where the trainees receive a substantial amount of their instruction conjointly with their future co-workers. It is hoped that most of this joint instruction may take place in a community setting where primary care is being offered to individuals and families.* 74,75

65. *THAT a study be undertaken of the nature of the contractual obligation of doctors to their patients, in settings served by the community health team, in order to provide guidance as to the legal implications of the delegation of common primary care services and functions, by the physician or dentist, to other* ,75

Developing the Roles and Training of the Team (cont'd) **Page**

members of the team such as a registered nurse, the social worker, the registered nursing assistant, the registered physical and occupational therapist, and others.

66. *THAT active encouragement be given to training programmes for family physicians, in which the trainees receive substantial amounts of their training in a community health setting in common with trainees for other professional roles on the health care team.* 75

67. *THAT a continuing critical survey of current developments in the definition of the role of community health team nurse be undertaken and the results widely circulated on a periodic basis to those charged with responsibility for training programmes for health professionals likely to serve on future community health teams.* 76,77

68. *THAT the R.N.A.O. and College of Nurses of Ontario be requested to develop as soon as possible a proposed description of the professional role of the nurse in the community health team together with suggestions for the specific preparation required to fill the role(s) described. Financial and other resource support should be made available for this purpose.* 76,77

69. *THAT consideration be given to the advisability of requiring that a course in family and community nursing be required in the training of all diploma and baccalaureate nurses graduating in Ontario.* 76,77

70. *THAT consideration be given to rearranging the services of public health nurses engaged in primary health care so that routine contact is made by telephone or in person regularly (for example weekly) between the public health nurse and the office of every physician delivering primary care in Ontario, in order to offer assistance and convey any information or suggestions regarding current community health from the medical officer of health. Normally this* 77,78

Developing the Roles and Training of the Team (cont'd) **Page**

personal contact would be between the public health nurse and the practice nurse or other assistant working in the doctor's office.

71. *THAT, as a general rule, financial and other resource support should be made available to primary physicians expressing an interest in programmes centred on their offices in which the public health nurses employed by the medical officer of health could take part. Such support should normally include payment of a reasonable office rental for space occupied by the nurse and other reasonable expenses such as costs of publicity and clerical assistance.* 77,78

72. *THAT those responsible for publicly supported home care programmes in Ontario continue to improve their liaison with primary care physicians by all available means, including telephone conversations and personal meetings with the primary physician or his nurse or office assistant.* 77,78

73. *THAT, in those districts of Ontario where organizations of visiting bedside nurses are active, encouragement be given for them to arrange for one of their field representatives to visit the office of every physician in the district on a periodic basis to review the services available and to provide opportunity to discuss areas of mutual interest.* 77,78

74. *THAT, in principle, the services of a trained medical social worker should be available, on referral by primary physicians or other members of the community health team, to every citizen of Ontario.* 78

75. *THAT, in those areas of Ontario where the services of a trained medical social worker are not available, consideration be given to the steps necessary to provide such services through the local medical officer of health or county health unit.* 78

76. *THAT, where directories of community care facilities available through social and welfare agencies have* 78

Developing the Roles and Training of the Team (cont'd) **Page**

been published, the necessary financial and other resource support be made available for the free distribution of such material to every physician delivering primary care in the district concerned. For example, the publication "Community Services in Metropolitan Toronto, 1970" should be distributed without charge to every physician delivering primary care in Metropolitan Toronto.

77. *THAT a study be undertaken applying the principles of health and business administration to the problems of administrative organization and operation outlined in this report relative to the development of community health teams.* 78,79

78. *THAT, in the area served by each health science complex, liaison be developed between the university health faculties and the community colleges in order to clarify job specifications and training programmes for health workers likely to be working on community health teams.* 78,79

79. *THAT, wherever feasible, training programmes for community health team workers, such as secretaries, registered nursing assistants, and receptionists, should include learning assignments to the offices of community health care teams where patient care is being given.* 78,79

80. *THAT, in order to increase the contribution made to community health by members of the extended community health team, consideration be given to the following proposals: joint training programmes with other professionals likely to serve on the community health team, components of training delivered in the offices of community health teams, and opportunities for joint examination of community health problems.* 79,80

FURTHER DEVELOPMENT OF THE TEAM

81. *THAT wide publicity be given to the fact that* 80

Further Development of the Team (cont'd) **Page**

financial and other resource support is available under the Ontario Health Resources Development Plan for innovations in patterns of primary care delivery.

82. *THAT wide publicity be given to the principles, priorities and methods of assigning this support to those applying for it.* 80

83. *THAT consideration be given to the following priorities in assigning such support:* 80

(1) that a wide variety of patterns and models of community health teams should receive support;

(2) that, since a broader chance for change in the direction of the team delivery of care resides in the physicians and other health professionals already rendering care, all reasonable requests for resource support in this area from those already in practice be given careful consideration;

(3) that, in such consideration, practicability of introduction and the likelihood of stability of arrangements receive equal consideration with uniqueness or originality of new proposals;

(4) that assessment of the success of proposed changes, in general, should not be the primary responsibility of the primary health professionals, but rather should be arranged co-operatively by the applicants, the committee administering the health resource development plan support, and the nearest or other appropriate health sciences complex.

PART THREE
INDIVIDUAL AND COMMUNITY NEEDS FOR HEALTH CARE IN DISTRICT PREMISES

THE HEALTH RESOURCES CENTRE

OWNERSHIP, AND PAYMENT OF STAFF OF THE HEALTH RESOURCES CENTRE **Page**

RELATIONSHIP OF HEALTH RESOURCES CENTRE TO GOVERNMENT AND UNIVERSITIES

Relationship of Health Resources Centre (cont'd) **Page**

consumer groups, and districts of Ontario would be consulted, in order to recommend to the Government of Ontario under what circumstances financial and other resource support from the Health Resources Development Fund be used to promote the establishment and maintenance of health resources centres as described in this report.

REPORT

Introduction

TERMS OF REFERENCE

The Sub-committee is one of five sub-committees of the Health Care Delivery Systems Committee of the Ontario Council of Health. The Sub-committee's Terms of Reference are:

> *To study and evaluate the health team and other arrangements for providing health care.*

The Sub-committee has taken a broad view of the terms of reference to include all aspects of health delivery which relate directly to the patient, the doctor, and other health personnel, as they work together in the community setting.

GENERAL CONSIDERATIONS

In the opinion of the Sub-committee, the general quality of care delivered in Ontario at present is relatively good. There are many reasons for this, including the relatively high per capita income, the high level of efficiency of public health programmes, the large number of persons in the health professions, the presence of five medical schools each in a health sciences centre taking some responsibility on a regional basis, and the persistance to a very considerable degree of a system of personal care of private patients by general practitioner-family physicians and other primary physicians. There are many evidences of good will and confidence among the health professions and in the community in the overall

attitude to health matters. The general mood, then, is one of confidence rather than serious impatience, but there is a steady expectation of change and improvement as well.

It is generally accepted that medical manpower is short, partly because of increased expectation of improved services across the board, from prevention and early case finding through emergency hospital and highly specialized services through to rehabilitation and care of the aged. As well as this increased expectation, there is new boldness of demand based on the broadened ability to pay, guaranteed by the policies of O.H.S.I.P. and O.H.S.C.

Against this manpower shortage emerges the widely held view that, while everything should be done to increase the manpower, great improvements might be brought about by somehow making more efficient the so-called methods of delivery, and in particular in community arrangements for ambulatory care.

It is apparent that the people of Ontario will insist on a free choice of a physician at least as an option, and that many will insist on direct access to specialists for their entry into the health matrix as patients. It is also clear that a direct confrontation between patient and physician over the terms of their mutual contract for service will continue and that, in spite of some disadvantages, the fee-for-service will continue as one method of payment. At the same time, there is no reason why other contractual arrangements cannot be allowed to develop in Ontario, to see whether a lessened emphasis on the medical episode and a greater emphasis on the principles of continuity and fuller health might not be worked out to the advantage of the patient, doctor, and the community at large.

Delivery of health care varies so much from district to district in Ontario, from the highly personal to the highly public, with such an added mixture of concerns with sister professions grouped around a very large health team, that no one system or model can possibly be valid across the whole province, or in one area for any length of time. There can be no question, therefore, of a health sciences centre or university planning a perfect model of community care, nor can there be any question of government providing such a model or taking over the system in order to improve it. Nevertheless, it may be possible for the government or the health sciences centres to influence and encourage the movement of the mainstream of primary community care in the direction of more availability and effectiveness. What is good may be built upon while reasonable innovations

are being encouraged and assessed for the future benefit of all.

It is in this spirit that the Sub-committee offers this first interim report, and seeks direction as to further activities.

PROGRESS OF THE SUB-COMMITTEE

In October, 1969, the Committee on Health Care Delivery Systems approved of the Sub-committee's identification of three major areas for primary consideration in community health care. These were:

(1) The availability, training, and function of primary physicians;

(2) The membership and nature of the health care team; and

(3) The relationship of district health facilities to the community, and to the patient as consumer.

Accordingly, the Sub-committee divided into three working parties, each studying one of these areas. As well, meetings of the whole Sub-committee continued, and a number of visiting experts were heard. Generous support was received from personnel in the Research and Planning Branch of the Department of Health.

The interim report of the Sub-committee which follows, therefore, is basically a series of comments and recommendations based on the deliberations of the three working parties.

There are three Appendices: A. – List of material circulated to the Sub-committee; B. – Bibliography of all circulated materials and references; C. – Notes taken at meetings of the whole Sub-committee attended by visiting experts.

PART ONE

Availability, Function and Training of Primary Physicians

1. TOTAL NUMBERS OF PHYSICIANS

Given the dearth of specific definitions of health goals, functional descriptions of methods of delivery, and precise information on the health needs of the people of Ontario, one can only refer to such indices as:

(a) Percentage of provincial budget spent on health;

(b) Projected numbers of graduates from Ontario medical schools;

(c) Comparison county by county of certain traditional health indicators;

(d) Doctor to population ratios;

in estimating the adequacy of physician supply.

By any of these standards, Ontario is in a relatively favourable position. These factors and others, such as the provincial birth rate, the future health care delivery system, the numbers of immigrant physicians, and the number of immigrants in the general population, are important to any estimate of required health resources, but are difficult to predict. The Sub-committee is not of the opinion that main advances in community health care will be brought about simply by measures to increase the numbers of practising physicians per 1,000 population. There must be close study of every possible

means of more effectively deploying and using the health personnel actively engaged in practice. If this could be achieved, the manpower position might be radically improved.

Recommendations 1, 2 and 3.

2. THE RATIO OF SPECIALISTS TO GENERAL PRACTITIONERS

The opinion of the Sub-committee is that general practitioner/family physicians will continue to deliver much of the primary health care in Ontario and that, for the next decade, between 30 and 50 per cent of the graduates of Ontario medical schools will be needed in this category. There is much evidence of renewed interest in the importance of the need to reverse the trend toward decreased availability of primary care physicians. Crude Ontario data suggest that general practitioner/family physicians constitute 45 per cent to 50 per cent of the total physicians.* This may not be the "correct" percentage for the health system in 1980, but the Sub-committee's premise suggests it should be maintained until evidence is forthcoming that calls for substantial change in this ratio. Several models of primary care can be identified:

(a) The multi-specialist clinic. In this model, specialists, with or without family physicians, practise together in some kind of formal arrangement so that the specialties can be represented in proportion to need. In these clinics, responsibility for primary care usually rests with the internists, pediatricians, and obstetricians, or may include primary care family physicians.

(b) The tripartite model. Primary care is divided between internists, pediatricians, and obstetricians, who practise independently or in groups with all three specialties represented.

(c) The family physician system. The family physicians may practise individually or in groups of various sizes with various arrangements for specialist consultation.

All these systems are capable of providing good primary and continuing care. There are, however, certain suggested objections to

* Canadian Medical Association – Survey of Physician Manpower, 1967.

the first two models: first, internists and pediatricians are not being produced in anything approaching the numbers needed if they are to fill the primary role. This applies particularly to pediatricians. There is evidence of lack of recruitment to pediatrics and of the serious attrition rate among primary pediatricians in the United States. Second, specialty training programmes are not preparing their graduates for the role of primary physician. Physicians trained for specialty practice may experience a conflict of role when they find that they have to devote a large proportion of their time to primary care. Third, internists, pediatricians, and obstetricians cannot cover for each other for time off. In order to provide such necessary coverage for free time, it becomes necessary to have three or four representatives of each specialty in the group. Fourth, these specialists seem reluctant to practise in rural areas. Fifth, low cost effectiveness is offered as an objection but no hard evidence is at hand.

One crucial objection to the family physician model is that, with the knowledge explosion, no physician is competent to provide such a broad range of medical care. We believe this objection is based on a series of fallacies:

(a) That the quality of a physician's practice depends on his factual knowledge. It is doubtful that a poor medical practice is due to lack of knowledge. Lack of care, lack of thoroughness, failure to listen, or poor communication are much more likely factors. It is a great mistake to equate knowledge with information. The explosion is one of information rather than knowledge. True knowledge springs from deep reflection on experience.

(b) That science becomes more complex as it advances. The converse may be true. Sciences become easier to comprehend as general laws are formulated, and medical science is no exception.

(c) That all information is of equal value for all physicians. Much of the information now disseminated only concerns specialists in a narrow field. The family physician requires less technical information and his role is based on the skills of history taking, examination, and the integrative evaluation of tests and reports.

If the information explosion has outdated the family physician, it is only a matter of time before the general internist and pediatrician are similarly outdated. We believe the explosion of knowledge to be irrelevant to the argument over the validity of the

function of the family physician. Like any other physician, the family physician has a special area of knowledge and expertise.

Recommendations 4 and 5.

3. THE NATURE OF PRIMARY CARE

Primary care is a service term from the patient's point of view as its receiver, rather than an administrative or manpower term. By primary care, we mean first contact care in all cases, definitive care for those cases which do not involve specialist referral, and general supervisory and advisory care for those cases which do. It is part of the spectrum of progressive patient care which embraces health maintenance and disease prevention through illness to recovery.

The crisis of manpower thought to exist in the delivery of primary care is partly due to inappropriate deployment of manpower already available. Support is required for measures to meet regional needs for progressive patient care. Gaps need to be identified and filled and discrepancies reduced so that everywhere in Ontario patients are assured of available resources to provide a sanitary baseline of prevention of disease and early diagnosis, urgent and emergency calls, good quality care in the management of disease, access and reasonable referral to highly specialized services, continuity of care, rehabilitation, and care in chronic illness and old age.

Recommendations 6, 7, 8, 9, 10 and 11.

4. THE ACTIVITIES OF THE FAMILY PHYSICIAN

The Committee offers definitions of primary physicians:

(a) Primary Physician (unrestricted) – a physician who contracts with patients of all ages to make medical care available to them at all times for any health problem, and to accept a continuing responsibility for their medical care and improved health maintenance. This term is synonymous with family physician or general practitioner.

(b) Primary Physician (age or sex restricted) – a physician who

contracts with persons of one age group or sex to make medical care available to them at all times and to accept continuing responsibility for their health maintenance and medical care, e.g., pediatrician, internist, obstetrician.

(c) Primary Physician (problem restricted) – a physician who is directly available to persons with certain types of problems and who accepts continuing responsibility for this type of problem only (e.g., ophthalmologist, dermatologist).

The concept of a contract is implicit in the first two definitions. The Sub-committee appreciates that this is a statement of an ideal which, while often unrealized, is important for future medical care.

The role of the family physician is:

(a) Primary diagnosis for all types of health problem.

(b) Provision of medical care for those health problems which lie within his scope (80 to 90 per cent of the total, depending on factors of training, inclination, and availability of specialist's care).

(c) Supervision and co-ordination of care for patients requiring specialist diagnosis or treatment.

(d) Maintenance and expansion of health for the patient population forming his practice.

(e) Protection of the specialist expertise of the specialist.

The high prevalence of emotional problems and chronic illness and the close relationship between medical and social problems make it necessary for the family physician to be able to work closely with community health professionals such as public health nurses and social workers. The concept of team work is indispensible to the effective practice of family medicine.

Also implicit in these definitions is the association of primary and continuing care. We cannot visualize a satisfactory system of care in which the doctor of first contact does not also provide personal and continuing care. The dissociation of primary from continuing care is sometimes exemplified in the work of the emergency department. We believe this type of care to be unsatisfactory except

for true emergencies.

We believe that there are sound theoretical reasons for retaining the family physician as the primary physician. Many illnesses have their origins in family life, and it is probable that a physician who treats all family members will have more insight into such illnesses.

A. Definition of Family Practice

In other sections of this report, definitions of the family doctor and of primary medical care have been formulated. There have been many attempts made to specify the content and working conditions of the practice of family medicine: most practitioners and research workers seem to favour a definition offered by the Council on Medical Education:

In family practice, the doctor

(a) serves as the physician of first contact with the patient and provides a means of entry into the health care system;

(b) evaluates the patient's total health needs, provides personal medical care within one or more fields of medicine, and refers the patient when indicated to appropriate sources of care while preserving the continuity of his care;

(c) assumes responsibility for the patient's comprehensive and continuous health care and acts as a leader or co-ordinator of the team that provides health services; and

(d) accepts responsibility for the patient's total health care within the context of his environment, including the community and the family or comparable social units.

B. The Content of Family Practice

Most studies of general practice and its content have been undertaken in the United Kingdom. These have included surveys of practice, general details of practice, percentage of patients seen in a year and over a period of years, utilization rates by background characteristics of patients and doctors, time and motion studies,

doctors' incomes and expenses, referral patterns to specialists, house calls and night calls, hospital admissions, illness morbidity and prescribing patterns, therapeutic action by doctors, and the use of ancillary services. In 1965, the Royal College of General Practitioners of Britain published a useful monograph summarizing data from various studies and providing a composite profile of the British practitioner.*

A few studies have been undertaken in Canada, including "The General Practitioner" by Clute and a forthcoming monograph by Wolfe and Badgley on the family doctor.

C. Organization of Family Practice

This term refers to how doctors work generally and the types of contract covering their activities in their practice settings, e.g., solo, partnership, group practice, hospital-based practice, etc. Of the relatively few studies available on the organization of practice on this continent, the majority come from the United States and should be applied with caution to Ontario. In general, the following profile is suggested: solo practice may be more personalized than group practice, but may be less proficient technically. Doctors operating on a fee-for-service seem to have higher hospital admission rates and higher surgical rates than doctors on salary contract for all service.

The impact of different types of practice organization on physician and patient satisfaction, the warmth of the doctor-patient relationship, payment and treatment patterns, have not been well enough studied to be clearly understood.

D. Quality of Work

In the performance of any work, standards tend to evolve by which excellence is measured. These standards may be easily specified for some categories of workers, while in others only loosely defined criteria seem to govern. In medicine, it is generally assumed that certain assessments at the undergraduate internship and residency levels are adequate indicators of competence and the mechanism of licensing is applied accordingly. Professional licensing bodies and voluntary medical associations are both concerned that their members provide high quality care, yet the explicit definition of

* The G.P. and Preventive Medicine: Joint Meetings of the Royal Society of Health and the College of General Practitioners, 1966; page 17ff.

what is good, average, or poor care must be difficult to define, because there are remarkably few studies anywhere dealing with the subject. Among the few are those of Peterson* and Clute.** In each of these, a reasonable attempt was made by direct observation to assess individual practitioners on the quality of their management of patients, including history, physical examination and interpretation of the results, and motive treatment to the patient. Although these studies by definition depended on the observations of one group of doctors or another, at least an attempt was made to establish standards reflecting current opinion about the quality of medical care. The conclusion of both these studies appears to be that a significant percentage of patients might be receiving care with major deficiencies. A more recent study by Duff and Hollingshed at Yale reached a somewhat similar conclusion concerning the work of specialists.

Many of the serious issues raised by these well-known studies have not been faced. There is a major need for a further extensive research into the field of medical care standards, so that both the profession and the public may take a more active interest in their establishment, implementation, and improvement.

Recommendations 12, 13, 14 and 15.

5. THE TRAINING OF FAMILY PHYSICIANS

Until recently, specific postgraduate training for general practice existed only on a very small scale in Canada and was largely hospital based. During the past three years, specifically designed postgraduate training for family medicine has been in operation in three centres in Canada. Just over a year ago, family medicine became an accepted specialty for board certification in the United States. The College of Family Physicians of Canada has consistently advanced the concept of specifically designed postgraduate training in family medicine, and in June, 1969, conducted its first certification examinations.

In the opinion of this Sub-committee, physicians should be

* Peterson, O. L., Andrews, L. P., Spain, R. S., and Greenberg, B. G., *Analytical Study of North Carolina General Practice, 1953-1954.* S.M. Educ., 31 (1a) 1-165 Part 2, 1956.

** Clute, K. F., *The General Practitioner – A Study of Medical Education and Practice in Ontario and Nova Scotia.* University of Toronto Press, Toronto 1962, 632 pp.

specially trained for family practice, which should be encouraged to become a separate academic and career discipline. In addition to adequate skills in the traditional clinical areas of internal medicine, surgery, pediatrics, obstetrics and gynaecology, psychiatry and public health, the curriculum will include special emphasis on human development and relationships, communication and administrative skills, the ethics of medical practice, learning theory and self-education, epidemiology and preventive medicine, and those broad responsibilities for community health outlined in the whole of this Sub-committee's report.

Much of this training should take place in a setting similar to that in which the family physician will practise, so that he will be brought face to face with the problems of family practice and develop the skills required. The trainee learns family medicine by its practice in an academic setting, where he is under the supervision of his teachers and is thinking about the basic principles of what he is doing.

Just as there is a need to train the future family physician in settings comparable to his future practice, there is a corresponding need to relate numbers of trainees and curriculum content more closely to the specific needs for primary care in the various regions of the province. The areas which have few general practitioners per 1,000 population are often the same areas which have even fewer specialists per 1,000 population. For example, in 1967, census figures show for the county of Middlesex a GP population ratio of 1:1,026 and a specialist ratio of 1:1,044. But in the same survey the county of Perth showed a GP population ratio of 1:1,511 and a specialist ratio of 1:3,357 and the county of Rainy River showed a GP population ratio of 1:2,347 and a specialist ratio of 1:25,816.* The implication is that in under-doctored areas the general practitioner is not only busier but is also more likely to be required to undertake work which might be referred if specialists were more available. In the application of this principle the training programmes in family medicine have not been worked out for such clinical areas as gynaecology, ear nose and throat surgery, and general surgery, particularly in geographically remote practice locations. Improved transportation of patients is only a partial answer.

Recommendations 16, 17, 18, 19, 20, 21 and 22.

* Preliminary Report of Ontario Medical Manpower in Ontario 1967, Research and Development Branch, Medical Services Insurance Division, Ontario Department of Health: March 1969.

6. THE RECRUITMENT OF FAMILY PHYSICIANS

A recent review covering four decades studies the impact of the college experience on career choice.* Compared to other students, those choosing medicine as a career make this choice earlier, but typically do not make the further election of their career choice within medicine until their final years of medical study. Many students, perhaps half, do not decide until their internship or even early residency programmes are completed.

Several studies of general practitioners in the United States have suggested that they may have different backgrounds than those selecting specialty careers. By values and personality, the general practitioner is typically more person oriented, tends to marry earlier thereby assuming earlier family responsibilities, and seeks to enter practice sooner.

Studies undertaken in Great Britain** have suggested that the practice of medicine is such a full-time activity that insufficient time is left, not only for social activity, but also for maintaining such professional activities as medical journal reading, and association with medical colleagues. These British studies suggest a composite picture of a hard-working dedicated physician not always as up-to-date as his specialist confreres might desire, and typically pressed to meet the heavy load of practice.

Apart from the Clute study, these characteristics of family physicians have only been described qualitatively in this country.

During the past decade, a large number of programmes have been introduced in the United Kingdom and in the United States dealing with comprehensive medicine, social medicine, preventive medicine, and family practice. Among the objectives of such programmes is the fostering among students of a broader perspective of the society in which they will be practising, and of the social and psychological problems of their patients in the family and community context.

Implicit in many of these programmes is the hope that they will delay the trend toward specialization. But careful studies in both the

* Lynden, F. J., Geiger, H. J., Peterson, O. L.; The Training of Good Physicians. *Critical Factors in Career Choices.* Harvard University Press, Cambridge, Massachusetts, 1968.

** Mechanic, D., General Practice in England and Wales: Results from a Survey of a National Sample of G.P.s. *Medical Care*, Vol. 6, #3, May-June, 1968, pp. 245-260.

United Kingdom* and the United States** suggest that, up to the present, these programmes have had little impact on diverting more students into family medicine, or in increasing their sensitivity towards social and community needs, than in those medical schools where such programmes do not exist. Training programmes alone are unlikely to alter the present trend away from family practice.

It may be assumed that everyone in the work force, at whatever professional level, is motivated by a complex set of values combining professional satisfactions, social relationships, and financial considerations. Little is now known about the range of values and incentives motivating one doctor to work harder than another, or to practise in one setting rather than another.

On graduation, a medical student is also faced with a series of alternative career choices from the point of view of organization. Approximately 85 per cent of Canadian physicians choose partnership or solo practice arrangements, but there is also the salaried public service, full-time salaried service within a hospital or other clinical setting, or work in a comprehensive group medical practice.

These and many other factors relating to background and motivation are important in recruitment, not only for family medicine, but in medical careers as a whole. Further study is urgently required.

At present, several strong factors militate against a career choice which includes a prolonged course of specific training for family medicine. These include the fact that the licence to practise is granted after the only one year of internship, even if this one year is spent in the first year of the straight residency programme without even the basic balance of the junior rotating internship. It is true that no residency-eligible candidate may sit for the new certification examinations by the College of Family Physicians of Canada who has not completed an approved three-year course with considerable specific training in family medicine. The crux of the problem is that there are major obstacles in the way of requiring all general practitioners to reach certification standards over the short term. First, there are about 10,000 general practitioners already in the field in Canada. Second, the immigrant contribution to Canadian medical manpower, including general practitioners, has been substantial and

* Last and Stanley: *British Journal of Medical Education*, June 1968, Vol. 2, #2, p. 137.

** Sanizaro, Bates: *Journal of Medical Education*, July 1968, Vol. 43, #7, pp. 777-789.

it is difficult to raise the standards for their licensure. Third, the shortage of primary physicians as a whole militates against the sudden prolongation of the training period required for licensure. It is not yet clear how family physicians, following certification, are to be afforded other, more practical recognition for their extra competence.

In the United States, with the new specialty board in family medicine, an attempt is being made to make certification available quickly to many thousands of practice-eligible physicians. At the same time, there seems to be no suggestion, at least in the foreseeable future, of raising standards so that everyone entering general practice must have a certificate in family medicine. In the United Kingdom, specific programmes for postgraduate training in general practice are developing in many centres, but it is not clear what their effect will be on the length of training required for general licence to practise.

The opinion of the Sub-committee is that, for the next decade in Ontario, those policies should be supported which add to the number of recruits entering family medicine, increase the specificity of the training in family medicine, and, as conditions warrant, adjust the quality and probably the length of the training programme, keeping in mind teaching and research needs as well as service for the public.

Recommendations 23, 24, 25, 26, 27, 28, 29 and 30.

7. WOMEN PHYSICIANS IN FAMILY PRACTICE

About 15 per cent of medical undergraduates are women, many of whom are attracted to family practice because they like to work with families, and in particular with women and children. Experience suggests that certain types of patients may prefer a woman physician. As in many other professions, special problems may arise for women physicians with young families. In particular, these women may shy away from the more strenuous aspects of family medicine, including emergency and night shifts and some of the other responsibilities involved in a full share of continuing care. Sometimes these women physicians are willing to pick up full responsibilities in family medicine again, after their early child bearing years, but they find themselves in need of special refresher courses.

Recommendations 31, 32 and 33.

8. RESEARCH IN FAMILY PRACTICE

It is a truism that there exists an urgent need for more reliable information about family practice and the delivery of primary care, both in order to elucidate general principles and also to promote improvement on a regional basis.

An examination of the research so far undertaken in family medicine reveals that in spite of their pivotal role in medical practice, little is known about the actual conditions under which family physicians practise.

In the study of any occupation or organization, questions like the following need to be considered:

(a) Who is recruited? Do they have special attributes?

(b) What is the impact of their initial training programme? How valid is in-service training in a teaching practice compared to more formal instruction?

(c) What career alternatives are open to graduates entering practice? What impact do the various alternatives have on standards of performance?

(d) What work is actually done by physicians? What is the relationship between actual practice activity and the nature of the previous professional training?

(e) What is the relationship between content and quality of work done in the method of payment for services?

(f) What is involved if the attempt is made to transfer specified activities from one category of worker to another? How many workers are needed in each occupational category?

(g) What is the impact of the total activity on the person receiving the services?

Such general questions should be applied to any activity in order to broaden the understanding required for reasonable planning. If we ask such questions about family medicine and the delivery of primary care, we find a widespread "felt" need for more doctors, nurses, and general health service resources, but in fact insufficient

solid information is available. In the English speaking world, most of the research on family practice has taken place in the United Kingdom. Two recent bibliographical searches by the information retrieval system, MEDLARS, of the U.S. National Library of Medicine yielded over 1,000 titles. On close scrutiny, there were very few carefully executed studies which could form the basis for the establishment of health policy. Most were of a descriptive or anecdotal nature.

As long ago as 1964, the Royal Commission on Health Services advocated that educational and training facilities for health workers should be developed in the light of a national "crisis." They went on to state, "in the preparation of our report, we have examined many facets of our health services. In this undertaking one of our major problems was to obtain adequate data. Time and again we have mentioned a lack of some essential data; how we have had to rely on estimates; and further study, observation and experimentation are necessary; all of which lead to numerous suggestions in our report for further investigation of specific problems."

We on this Sub-committee can only agree and point to the application of the above quotation to our own activities. This present interim report is largely based on the personal opinions and experience of the members of our group. It is an attempt to raise the issues and offer temporary benchmarks requested by our parent committee, but we are agreed that constant flexibility of implementation is essential, and must be based on continuing assessments and further research.

Recommendations 34, 35, 36 and 37.

9. OTHER MEANS OF DELIVERING PRIMARY CARE

There is some evidence that the activities normally ascribed to the primary physician may be carried out by other medical and non-medical workers. One American study* of pediatric practice suggested that, of the total time with patients, the doctors spend 50 per cent seeing well children and 22 per cent seeing minor respiratory illness. This study concluded that less than 2 per cent of the working

* Bergman, A. B., Dassel, S. W., and Wedgwood, R. J.: Time-Motion Study of Practising Pediatricians. *Pediatrics:* 38, 254-263, August, 1966.

time of these specialists was spent on types of illness for which they were specifically prepared. Another study in New York State suggested that, in a representative sample of private practices of internal medicine, 63.6 per cent of the patients were self-referred rather than referred by other physicians.

These studies again raised the issue of the need to define the activities of professional health workers and the further need to identify specific grouping patterns of patients to a total health resource including physicians, as well as the present system of studying patterns of patients among physicians.

Little is actually known about the content of the physician's work in Canada, the extent of overlap of functions among family doctors, internists, pediatricians, and others, and the extent to which primary care practice might be more sharply delineated by measures specifically designed to influence patterns of patient referral and management.

While existing Canadian studies have served as useful prototypes, they merit replication on a broader basis to add to our knowledge of what the doctor is doing and to make suggestions about tasks which might be usually undertaken on the one hand by specialists, or on the other by allied workers. This realignment might permit the doctor to undertake more work for which he is specifically trained.

Most health manpower studies are confined to the roles of a few traditional health workers such as physicians and nurses. The numbers, functions, and professional activities of other health workers and allied semi-professional workers have not been as well studied. Reports from the Family Health Maintenance Demonstration programme at Montefiore Hospital in New York City,* in which 150 families were provided with service from a team consisting of a family doctor, a public health nurse, and a social worker, indicate some advantages compared to a controlled group receiving ordinary care. The suggestion was that the early availability of service might have been responsible for the improvement in health. There was a high degree of professional satisfaction within these health teams and a high level of acceptance by patients.

* Silver, George; Family Medical Care. *A Report on the Family Health Maintenance Demonstration.* Harvard University Press, Cambridge, Massachusetts, 1963.

There is extensive literature from the United Kingdom about the attachment of allied health workers, including social workers, practice nurses, and health visitors (Appendix). There have also been a few studies in Canada.*

It is impossible to generalize from these selected studies. Further comments are made, from the point of view of the team rather than the physician, later in this report. What seems called for is not only an exploration of whether some part of the physician's task can be delegated or transferred, but under what condition such a transfer can be made acceptable to the physician, allied health worker, and the patient.

Recommendations 38 and 39.

10. SPECIAL PROBLEMS OF UNDERSERVICED AREAS

Everywhere in the world there are difficulties in providing basic standards of care to depressed or isolated areas.

Extra support comes from the public sector or from private subsidy or philanthropy. Effort tends to be focused through Public Health or other government authority. Arrangements often consist mainly of general practitioners specially designated for this function under contract, with special arrangements made for emergency, surgical, and other specialist support, and with the widespread employment of nurse practitioners with extra responsibilities. The Federal Northern Health Service, the Indian Health Services, Home Mission Hospitals, plant physicians in isolated areas, and special medical services for depressed downtown areas, are all examples of the application of the principles outlined above.

Special facilities set up by a variety of agencies serve the underprivileged and immigrant population of Metropolitan Toronto. Primary care is readily available from the out-patient departments of the downtown teaching hospitals, from the emergency departments of all city hospitals, and the primary service contribution of a large series of health institutes or associations such as those with special interest in addictions, rheumatic and arthritic diseases, chest diseases, and psychiatric and rehabilitation problems.

* Jones, Phyllis E.; Public Health Nurse Teamwork. *Family Doctor,* April 1969.

Many physicians who choose family practice eventually seek additional training in a specialty. Like other skilled and professional workers, physicians of all kinds, including family physicians, tend to concentrate in urban centres where very advanced facilities are located, opportunities for referral are present, and at the same time social amenities are broad and excellent. Educational and cultural opportunities are available to the family and children.

Many methods have been suggested or are in use to encourage the attachment of doctors to isolated or depressed communities:

(a) Extension of entitlement to the disadvantaged population. This is a basic step which is already in effect in Ontario and has doubled or tripled fee income in certain areas.

(b) In designated areas the fee schedule could be prorated at above 100 per cent. This has the advantage of maintaining the contractual relationships of the basic fee for service, but also provides the flexibility necessary. Negotiations on a district basis, in which the insuring agencies would take part, could set the amount by which the proration exceeded 100 per cent to the point necessary to produce improvement in the supply of physicians.

(c) Direct government subsidy by bonus or guarantee of minimum salary, together with alternative benefits in the form of student bursaries or financial assistance in the establishment of practice. This is the arrangement suggested by the Ontario Health Resources Development Plan.

(d) In Nova Scotia, Sweden, and elsewhere, the doctor may be permitted to charge the ordinary fee schedule for visits, but in addition be paid a salary as a public health officer for certain preventive and public health functions.

(e) Physicians may be kept out of specially attractive or overly doctored centres by limiting the number of "places available" as is done in Britain and Scandinavia.

(f) Further training for preferred placement may be made conditional on a period of basic service, as is the pattern in Russia, Mexico, Yugoslavia, and South Africa. With the exception of a few selected as teachers, all graduates of Russian medical schools must serve two years in a practice vacancy and then return to a

special institute for further training. No one can set up a general practice in Mexico City until he has practised for one year outside. Postgraduate work in Yugoslavia can be arranged for the general practitioner on an "in-service" basis so that he need not break his service continuity.

(g) In Helsinki, Finland; Denver, Colorado; Kingston, and Hamilton, Ontario; and elsewhere, physicians go out from a large centre to provide primary care in a district clinic some miles away. These systems may lack total continuity of physician's care for patients but tend to provide a vehicle for medical research and education if the staff exodus is from a teaching centre.

Recommendations 40, 41, 42, 43, 44, 45, 46, 47, 48 and 49.

11. THE CONTRACT BETWEEN PATIENT AND PHYSICIAN

At the root of much of the dissatisfaction with medical services lies a lack of understanding by the public of the sort of services they are entitled to expect from their physicians. A patient may believe that his physician may provide a continuous service, either himself or through a named deputy, only to find out that, when he needs help, no arrangements have been made. Or a patient may think that his doctor is available for initial advice on all health problems, only to find that he excludes certain problems from his practice.

In the opinion of this Sub-committee, there is need to clarify the nature of the contract between patients and physicians, particularly family physicians. Confusion exists as to when the doctor/patient relationship begins, under what circumstances it may be terminated, and whether there is in general an implied undertaking to provide continuity of care which in turn also implies availability for urgent calls on a continuing basis. Is there an implied contract to provide a substitute? What if one is not obtainable? Must the doctor render first aid at the site of an accident? Under what circumstances are a doctor's records private and privileged?

These and many other legal questions are germane to the development of new patterns of health care delivery. We believe that the contractual obligations of physicians providing primary care need to be clarified and this should be undertaken by a special committee

with representation from the legal profession.

Recommendation 50.

12. THE QUALITY AND ORGANIZATION OF COMMUNITY PRACTICE

A. The Role of the Health Professions

The doctrine of professionalism rests on certain historic concepts. These include long and often arduous training supported and encouraged by the public, in return for this support a high sense of public obligation and professional pride, and the parallel obligations of peer review and discipline enforcement. These concepts are valid but great ingenuity will be required in their application to new forms of community health care delivery. Medical, dental, nursing and other health professionals have the right and duty to continue to adhere to their basic professional ideals and to express them in modern terms. This may include insistence upon availability of the necessary equipment or personnel, or whatever is needed for the discharge of professional responsibility to the patient. The health professional therefore can be expected to continue to take an active interest in the disposal of health resources and other support, particularly in those areas where inadequacies in patient care are suggested or where new plans or arrangements are likely to interfere with professional responsibility for standards of training, excellence of professional performance, or peer review. On the other hand, these professions are likely to encourage novel arrangements which improve standards of professionalism.

B. The Role of the Patients and Community

The role of the patient in his own health care has received insufficient emphasis in Ontario. Progress has been made in some educational programmes and through the involvement of patients and their relatives in responsibility for care in certain self-care areas of hospitals, home care, and rehabilitation programmes. There may be overemphasis on the alleged deficiency of community health services without enough constructive suggestions regarding the availability of care or its improvement.

There are many examples of laymen rendering informed and constructive service on medical boards and commissions of all types.

It is hard to see why the advantages of the lay point of view could not be made available for community health arrangements including small private practices. This seems evident if there is to be any improvement in public resource support for those features of community practice which are likely to improve patient responsibility, the embracing of health as a positive concept, the application of preventive medicine and rehabilitation, and access on a demand basis to special equipment and personnel. Organized activities by consumers have practical advantages if they concentrate on improving the positive features of professional activity. Difficulties are likely to be avoided, particularly since the acceptance of the principle of universal entitlement, if particular consumer groups embarking on activities in the health field are broadly representative of the community, both in the control of such activities and in the availability of benefits.

C. The Role of the Health Sciences Centre

There is considerable evidence that the high cost of education to the tax payer has awakened a new interest in university activities which in turn has produced an entirely new era of community outreach. The result has been the growth of adult educational facilities available to the community at large, establishment of new courses covering new areas of community service, and the growth of community colleges and campuses distant from parent universities.

Thus, in the health sciences field, the university finds itself expanding its role more and more past the definition and study of the traditional clinical disciplines and delivering only that amount of community service required for the necessary teaching and research. Its new role includes a pursuit of the social and behavioural sciences as they apply to community care, together with a study of applied epidemiology, ecology, practice patterns, administration and effectiveness. To test new models of team co-operation, the university may have to change training programmes so that new combinations of health professionals can be trained together. In order to study underserviced areas and teach professionals-in-training about the problems, the university may be involved in providing service to these areas.

With such rapid changes in health as we now face, the university, with the co-operation of the voluntary professional associations, is asked to take some responsibility for the standards of professional knowledge among health professionals in the general area of the health sciences centre.

D. The Role of the Provincial Government

As pointed out above, the essence of the professional relationship has been a contract or co-operative confrontation between doctor and patient. For professional responsibility to remain high and for patient responsibility to increase, it would be wise for the government to function as much as possible within this historic confrontation. Thus the chief role of the government is as guarantor of payment rather than as employer. The contract remains with the patient, with the government helping to see that the terms are carried out.

The further obvious role of government is to help define standards of health services which are to be universally available and to identify and fill in gaps in the service. The two goals are broadened availability and improved quality of community service.

Recommendations 51, 52, 53 and 54.

13. METHODS OF PAYMENT FOR PRIMARY CARE

As pointed out above, the historic basis of professional health services is a contract between the health professional and the patient. The question is how this may be preserved, yet adapted to promote more widely available, improved service. New elements of demand in this service include personal advice in the field of preventive medicine, and expanded health maintenance, including physical fitness, environmental factors, family and vocational counselling, early case finding and periodic check-ups, the provision of active rehabilitation, and care in age and chronic disease. Several models might be proposed to accommodate such features:

(a) The inclusion of many new items on the physician's fee schedule from the areas of habilitation and rehabilitation, e.g., office visits re exercise programme $5.50; health examination $15.00; and so on. These items could be added to the fee schedule either by the OMA or by OHSIP without criticism.

(b) A contract would be made between patient and doctor, or between consumer group and doctors' group, under which all required health care for the year would be supplied for a certain amount of money. The contract is still between the patient and

the doctor (or group of health professionals). The government is guarantor.

(c) Under either Model (a) or (b) above, special arrangements could be made to pay for the work of other health professionals, so that they would be paid for extra services supplied by them, rather than increasing the overhead as at present, sometimes to an uneconomic level.

(d) Professional health workers entering into service contracts with patients might more frequently be employed by the Department of Health or other agencies to supply particular skills or services through an additional contract negotiated annually.

(e) As referred to in Section 10(b) above, underserviced areas may be subsidized directly, but present contractual responsibilities might best be preserved by prorating the fee schedule at whatever figure over 100 per cent was necessary to attract the required professional workers. This problem of underservicing is the joint responsibility of the health professions, the patients, the communities and the government, and all of these interests should be represented in the body which would negotiate the amount of the fee schedule above 100 per cent.

Recommendation 55.

PART TWO

The Membership and Nature of the Community Health Team

1. OPERATIONAL PRINCIPLES

In the opinion of this Sub-committee, no narrow definition of health will serve Ontario in the 1970's. From the point of view of the citizen in his personal family and community context, health is a positive, broad, striving toward expanding as well as maintaining a more satisfying life in a pleasant environment. The problems and opportunities are grouped around the patient as central focus, as he progresses through the spectrum of care. Great personal physicians and nurses have appreciated this in accepting as part of their role the duty to be available over a wide range of problems in a continuous way. Now, with complexities of knowledge and treatment, and a broader range of care being included in basic health entitlement, teamwork and co-operation become axiomatic and the co-operating health professionals tend to group themselves into more or less formal "clusters" (see the Report of the Manpower Committee to Council, January 1970).

No one model of a community health team could be designed for universal application across the province of Ontario. As a working definition, we offer the following: "The community health team is the cluster of health and other professionals providing comprehensive health care." Our definition of primary care was given earlier in this report: "Primary care is a service term from the patient's point of view as its receiver, rather than an administrative or manpower term. By primary care, we mean first contact care in all cases, definitive care for those cases which do not involve specialist referral, and

general supervisory and advisory care for those cases which do."

It is more difficult to define "community" in our present context, because we seek to include the usual concept of a local area in the geographic sense with a number of other functional concepts which may cut across geographic lines. For example, the patient's place of work may not be near his residence, his extended family may be involved in a health matter but be some distance away, or the patient and his family may have strong loyalties to another source of reasonable primary care. Sometimes team members may have commitments to a local institution or health authority which may involve them in the delivery of care beyond the immediate local area.

In the team approach to the provision of primary care in the community, there are a number of proposed advantages, but these may not be entirely consistant with one another. These advantages include:

(a) Convenient access for the patient to locally available comprehensive continuous primary health care;

(b) Provision of a base of operation in which the physicians, dentists, nurses, and other professionals can operate with maximum effectiveness and satisfaction, because of easy professional co-operation, good equipment, and sound principles of administration;

(c) The more effective study and solution of all health care problems in the geographic area surrounding the office of the community health team;

(d) The improved diagnosis, treatment and health maintenance of the defined population of families attaching themselves to the community health team; a meaningful alteration in the level of family health could be promoted by knowledgeable team members moving in and out of the family setting, relating to well members of the family in addition to the episodic care of the ill;

(e) Improved opportunities for training professional personnel in the team delivery of primary health care;

(f) Improved opportunities for both clinical and operational health research at the community level, including experiments in differing arrangements for the use of auxiliary personnel;

(g) Possibilities of consumer representation in the discussions over a wide range of subjects of mutual interest.

Some of the problems include:

(a) What exact compromises could be agreed to which would satisfy most of the aims set out immediately above. For example, how would the team extend its services past its own geographic area when the patient's interests seemed to indicate that it should?

(b) To what extent should new health teams be subsidized? (See Part Three, Section 5.)

(c) How can the contractual and ethical obligation between the patient and the professional health worker be defined and clarified?

(d) Where is the ultimate responsibility to lie for directing the activities of the team? Will the ultimate responsibility vary for clinical, administrative, nursing, social, and preventive and rehabilitation areas?

(e) How are the members of the team to be paid? What is their financial and contractual relationship to the insuring agencies and the public health authority?

(f) What is the relationship to be between the team and other medical and non-medical professional community workers in allied fields whose administrative organization may not lend itself to very close attachment to the team in one office location?

(g) In particular, what is the position of the dentist and his professional associates vis-à-vis the community health team?

It is clear that the development of the team will require a generous period of evolution and study, but that there are many pressures and needs promoting urgent progress. Pilot studies will therefore have to go forward while the needs are still being assessed, but alternatives within broad general policy must be left open if costly mistakes are to be avoided.

Recommendations 56, 57 and 58.

2. THE MEDICAL OFFICER OF HEALTH: HIS RELATIONSHIPS TO THE HEALTH TEAM

Traditionally environmental conditions of disease and deprivation which, by a cause-and-effect relationship, could adversely influence the well-being of the public have been designated by Statutes as responsibilities of a community Board of Health and its medical officer of health. This vigilance must be maintained. Continuing re-evaluation of programmes in relation to need will establish priorities among the general public health programmes. Among the areas of interest common to the medical officer of health and the primary health team, the following may be listed:

(a) Interference in health caused by problems in nutrition and housing;

(b) Diseases related to vocational and social adjustment;

(c) Physical fitness and the availability of leisure facilities;

(d) Environmental control including pollution;

(e) Misuse of chemical comforts including cigarettes, alcohol, and drugs;

(f) Anti-partum, post-partum, and well baby care;

(g) Innoculation programmes and the health of school age children;

(h) Screening and early case finding;

(i) Family planning;

(j) Psychiatric problems in children;

(k) Self-care, home-care, and other aspects of rehabilitation;

(l) Care of the chronically ill and aged, including special housing, meals on wheels, and special care units;

(m) Field orientation of medical students and residents to community health problems;

(n) Research into the delivery of health care;

(o) The role of the public health nurse in relation to clinical units including the community health team.

Recommendations 59 and 60.

3. THE MEMBERSHIP OF THE COMMUNITY HEALTH TEAM

As pointed out above, no one model of the future team will apply throughout Ontario. In the context of present conditions, the team means many different things, but the Sub-committee is of the opinion that we should begin with present patterns and encourage an active evolution along functional lines.

In the opinion of the Sub-committee, the primary resource person rendering care is the physician, usually the family physician. It seems reasonable that the appropriate team should evolve based on the demands individuals and families make on his practice or on the combined practice if he is associated with other primary physicians. It is anticipated that certain components of medical care now delivered by the physician will be taken on by other members of the team.

The team concept may be most easily accepted if the team initially develops with the physician and the nurse as members. The nurse as community health team member is in the midst of a process of role development just as the physician is. At present, in Ontario, less than 35 per cent of practitioners' offices have even one full-time registered nurse.* To promote appropriate use of personnel in health care delivery, every effort must be made to explore the potential of the graduates of present nursing programmes. Changing needs in health care have made for in-depth restructuring of nursing education programmes over the past five years. With greater knowledge of the basic competencies in each stream of nursing education, necessary modifications may be introduced to the appropriate stream so that the nurse can assume an expanded role as a participant in the provision of care – (a) in addition to the physician; (b) instead of the physician.

Probably the first additional members of the community health team should be the community nurse and the social worker. They

* *Countdown*, C.N.A. Research Unit, 1968.

may often serve more than one team but their services should always be available to the team and they should usually attend the office where the team is based, both in order to see patients and to consult about team and community problems and programmes.

In the opinion of the Sub-committee, dentists and specialists providing secondary care have many problems in common with the community health team and should be considered as extended members of it. Similarly, close relationships should exist with physio- and occupational therapists, with representative groups of pharmacists, and possibly optometrists and podiatrists as well. This is important not only to provide more efficient service from all primary health workers and to prevent overlapping, but also in order to develop a sense of professional and community responsibility. The Sub-committee does not see any valid place for chiropractors in the community health team.

Recommendations 61 and 62.

4. DEVELOPING THE ROLES AND TRAINING OF THE TEAM

Many factors will influence the further development of the team concept in community health. These include the education of the team members, financing, the attitude of physicians, the evaluation of the nurse and her competencies in an extended role, and the attitude of individual patients and their families toward the new roles of team members. The opinion of the Sub-committee is that, among present health professionals, the nurse is most capable of developing an extended role of extra helpfulness to the patient and his family and to the physician in the context of the community health team. It is recognized, however, that communities will present many different opportunities for health maintenance and improvement and varying degrees of multiple pathology – mental, social, physical – which will require extended roles for members of health professions other than nursing. Although the basic team is seen as composed of physicians and nurses, the influence of needs and demands of particular families in a particular practice would require varying patterns of co-operation from team members bringing other professional skills.

In addition to the idea that role development should at least begin from the ranks of our present health professionals, and the requirement for specific role descriptions which is developed on an

individual basis in more detail below, the Sub-committee has the conviction that a number of other principles apply to the further development of the team:

(a) That training for any of the health professionals on the community health team should take place to a large extent in a setting where such a team is already in operation and where trainees for the other co-operating roles are also in training.

(b) That training for all of these roles must include instruction in the art and science of communication in the group setting.

(c) That such training must also include joint studies with all team members of total community health needs, including problem identification, suggested methods of solution, and the principles of co-operation with other community care agencies.

(d) Such training should also include team discussions regarding individual and joint responsibility for the individual patient and his family, as well as the community at large, for the delivery of high quality continuous integrated primary health care.

(e) Such joint training should also include a study of the principles of office and business administration, with special reference to principles of cost-effectiveness, professional role description, and the delegation of decision-making.

Recommendations 63 and 64.

5. THE ROLE AND TRAINING OF THE PHYSICIAN

The opinion of the Sub-committee is that the primary member of the health team is the physician, hopefully a specifically trained family physician (see Section 1 above). This rests on tradition, the legal contract defining the doctor-patient relationship, and the expectation of the other health professionals. These remarks apply particularly in the clinical area and may not apply in matters of team administration or in certain health maintenance and rehabilitation areas of patient care. What is called for is co-operative flexible leadership set in a practical, legal and professional framework. In the opinion of the Sub-committee, specific training for this role is important.

Recommendations 65 and 66.

6. THE ROLE AND TRAINING OF THE PRACTICE NURSE

It is anticipated that the nurse member of the team would have an extended role in the delivery of care to children, obstetrical patients, and follow-up care, geriatrics, chronic illness, and in some areas of direct patient counselling, the management of telephoned and other inquiries, assistance with history taking, home visiting, triangle of the insured, and group and other teaching. She may also be responsible for developing educational programmes for groups of family members with common problems affecting family health, for example parents of teenagers, individuals preparing for retirement, and persons living alone. She would be prepared to discuss normal growth and development and have a knowledge of other resources available to assist in maintaining health and in instances of deviations from health.

The preparation of a nurse appointed to the team would vary, depending upon the specific functions she would be accepting on the particular health team to which she was to be assigned, and upon the sophistication of other available resources. Whether she in general should be a diploma or degree graduate, and whether she should be a "public health nurse" or a nurse prepared as a clinical nurse specialist, remains to be determined.

In one general description of the career role of the modern nurse, the following components were identified:

(a) The personal role of health advocate for the total functioning of the patient;

(b) The function involving procedures delegated by the physician;

(c) The co-ordinating function on a continuing basis through which the nurse tends to represent the patient in dealings with other health workers;

(d) The institutional function representing the administration of the health facility.*

* Dr. Dorothy Kergin: An Exploratory Study of the Professionalization of the Registered Nurses in Ontario and the Implications for the Support of Change in Basic Nursing Educational Programmes, University of Michigan, 1968.

It remains to be shown how these various functions would be performed in the community health team setting. It also remains to be decided whether the community health team nurse should have a special name such as "community health associate" or "family nurse practitioner." Names similar to these will be applied to graduates of two different models of training courses for pediatric health professionals in Colorado. There are now a substantial number of courses available in the United States for the training of clinical health associates. Most of these are based on extending the skills and function of graduate nurses.*

Of note in Canada is the programme at Dalhousie University for the preparation of the Outpost Nurse for the northern health service of the federal government. (A good discussion of the role of the nurse on the community health team by Dr. George Szasz appears in Volume III of the Federal Task Force Reports on the cost of health services in Canada, under the heading "Review of Selected Current Studies in the Use of Health Professionals to Assist the Physician in Providing Ambulatory Personal Health Services.")

In the view of the Sub-committee, it is a matter of some urgency to proceed with further studies designed to clarify the role of the health team nurse, beginning with the assumption that this new role will represent an extended function of the present registered nurse.

Recommendations 67, 68 and 69.

7. THE FUTURE ROLE AND TRAINING OF THE COMMUNITY NURSE

By community nurse is meant the nurse charged with the responsibility for the delivery of care in the community in settings removed from the offices of the community health team or the hospital. For example in the home, school, etc. At present, these functions tend to be divided between the public health nurse and the Victorian Order, St. Elizabeth, or other nurse offering bedside nursing care. Other special nursing services may be extended or co-ordinated by special groups such as the Home Care Programme. Pending further investigation, the opinion of the Sub-committee is that no radical changes be

* Ford, Loretta C., and Silver, Henry K., *The Expanded Role of the Nurse in Child Care*, Nursing Outlook, September 1967. See also Appendix B, page 151.

made in the present system, but rather that a beginning be attempted in improved communication and identification of these nurses with community health teams.

Recommendations 70, 71, 72 and 73.

8. THE ROLE AND TRAINING OF THE SOCIAL WORKER

In Ontario, the role of the public health nurse has been developing along a family and community base. Social workers have principally served in single or special interest agencies, e.g., Children's Aid Societies and Family Service Bureaus. In certain large urban areas, however, there has been some consolidation of these smaller agencies into a larger multifaceted organization. In these communities, the social worker's role can achieve a new dimension that should complement that of the community nurse.

Wherever possible, medical social workers should receive a part of their training in the district offices of a community health care team. For the present, it is not practical to propose that every community health care team include a social worker, but the services of a social worker should be available at least by telephone to all primary physicians and health team nurses in Ontario, and in person to all patients referred by primary physicians. These services should be available either directly by visiting social workers in the offices of the primary physician or community health team, or in the local or district hospital, or through available community agencies.

In the absence of such availability, the services of the medical social worker should be available to the medical officer of health or county health unit. In a large district health unit, there is good argument for the employment of a social work consultant (Master's level) to support nursing staff and strengthen collaboration with existing agencies.

Recommendations 74, 75 and 76.

9. THE ROLE AND TRAINING OF OTHER TEAM STAFF

Because the concept of the team is in an early stage of development

and because conditions vary so much in terms of population and area served, it is too early to outline requirements for additional members of the team, such as registered nursing assistants, secretaries, and receptionists.

The following general principles should be considered:

(a) Clear definition of the total aims and activities of the community health team must be attempted for the particular setting being considered;

(b) The attempt should then be made to define clearly the professional responsibilities and services assigned to physicians, nurses, and social workers;

(c) Further services required should then be more easily definable and should be assigned clearly and be included in the job specifications for other categories of health worker;

(d) In general, professional satisfactions are greatest where a clear job description exists and where opportunities for responsibility, enlargement, enrichment, and upward and laternal movement are present;

(e) Decentralization and delegation of authority should be promoted to the greatest extent compatible with effectiveness, i.e., each administrative and clinical decision should be made as far down the ladder of responsibility as is compatible with the ethical, contractual and clinical obligations of the community health team to its patients;

(f) The assignment of professional roles must be acceptable to patients, and as consumers of the service they should probably be directly represented in discussions likely to result in radical reassignment of professional roles.

Recommendations 77, 78 and 79.

10. THE ROLE AND TRAINING OF MEMBERS OF THE EXTENDED COMMUNITY HEALTH TEAM

By "extended community health team," we mean the group of

health professionals co-operating closely with the community health team, but in general not involved in the team's ordinary daily service to patients. In general, members of the extended team would not be housed within the primary office area of the team, and would not be served by the same appointment and payment mechanisms.

Important examples are the dentist, and other physicians offering care. In general, they should be involved as much as possible with the general principles already set out above, i.e., (a) participation in components of professional training offered in common to other health professionals likely to serve on the community health team; (b) assignment to operating teaching community health centres for a part of their vocational training; (c) involvement by all such professional trainees and graduates in joint training programmes and after-graduation joint professional groups established to study and implement improvements and health problems affecting the whole community.

Similar principles apply in varying degrees to such other professionals as pharmacists and physio- and occupational therapists. These same principles may apply to some extent to optometrists and podiatrists as well.

Recommendation 80.

11. FURTHER DEVELOPMENT OF THE TEAM CONCEPT

The validity of the team concept depends upon whether, in fact, it would expand the service rendered to patients and their families and in other ways improve community health. It will also depend on factors of patient and professional acceptability. In the opinion of the Sub-committee, the government should encourage demonstrations of a variety of team models serving a broad variety of communities. Certain principles of team co-operation of very wide application might also be offered on an optional basis to the professionals already in the field of primary care delivery. In the demonstration and assessment phases of development, programmes would need to be subsidized until permanent financial arrangements could be established. The operational base for the team is a medical centre in the community (see Part Three). Where feasible, more than one such medical centre should serve a designated geographic area so that its residents would have a choice in securing their primary health care.

Recommendations 81, 82 and 83.

PART THREE

Individual and Community Needs for Health Care in District Premises

1. ADVANTAGES OF THE TEAM APPROACH TO THE DISTRICT DELIVERY OF HEALTH CARE IN READILY IDENTIFIED CENTRES

This long title seems necessary to describe adequately the vantage point of the ordinary patient as he approaches primary care. The team referred to may in its simplest form consist only of the primary physician and the registered nurse, approaching their duties with co-operative relationship and professional responsibilities set out in some detail earlier in this report. (Part Two, Section 3.) It is necessary to emphasize this point because in the opinion of the Sub-committee some of the models of district practice being described might in fact only have one physician on the team.

Several names were suggested to describe the physical location where the community health team would be set up. Examples were "family and community health centre," "district health clinic," "satellite health unit," and others. The Sub-committee preferred the term "health resources centre" and it is used in the balance of this report to mean readily identifiable district premises from which primary health care is continuously available from a community health team.

The patient population, the health team, and the province would all benefit for the following reasons:

Cost Effectiveness

(a) Avoidance of unnecessary hospital admissions;

(b) Avoidance of unnecessary cross referrals among specialists in different locations;

(c) Avoidance of unnecessary duplication of health services in the community;

(d) Possible economy in capital and running costs of the centre compared to present arrangements;

(e) Possible economies by assignment of specifically trained personnel for specifically defined professional roles.

Quality of Care

(a) Identification of a particular location as a focus for primary care;

(b) Availability of an intelligible health plan for any inquiring patient;

(c) Expectation of co-ordinated quality care by involvement of allied health workers;

(d) General acceptance of professional trainees on the staff;

(e) Opportunity for patient and community education and other forms of dialogue and patient participation;

(f) Dependability of service whether on an elective, urgent or emergency basis. Maintenance of an "urgent call" service at least on a telephone basis, continuously 24 hours every day.

(g) Ease of interprofessional consultation;

(h) Opportunities for professional stimulation, peer review, and continuing education;

(i) High quality may be guaranteed through an accreditation programme or through special relationships with the regional health sciences complex.

Benefits in Common to Patients and Professional Staff

(a) Attractive setting;

(b) Attraction of professional personnel back into the community;

(c) Pleasant and reasonable working conditions;

(d) Access to improved diagnostic facilities on an ad hoc basis having in mind the convenience and value of the patient's time and the location and size of the health resources centre.

2. DESCRIPTION OF THE HEALTH RESOURCES CENTRE

Size

The size would vary depending on circumstances. In the opinion of the Sub-committee, it is important that principles and concepts relating to health resources centres be so formulated that they may be applied to solo primary physicians already in active practice. Thus the smallest of the health resources centres would, in fact, be the office of the solo practitioner attempting to improve his delivery of care by working toward a practical application of the principles of the community health team.

Design

Ideally, premises should be designed for the purpose and details of design should be produced in consultation with a practising architect. Priorities should be put on attractiveness of design, effective functioning of the community health team, and the convenience and comfort of patients.

Location

Wherever possible, general principles regarding health resources centres should have universal application to all regions of the province. However, in the early apportionment of health resource support, it is important that communities of various sizes be included.

Health resources centres would vary in proximity to local

hospitals and some might be within the hospital, but many would not. In choosing locations, the convenience of the public should be kept in view in relation to the location of main transportation arteries and good parking. Enough property should be held to provide pleasant surroundings and for possible changes in future operations.

Consideration should be given to the advantages of locating health resources centres close to other community services such as schools, shopping centres, recreational facilities, district ambulance stations or first aid facilities, and the offices of other professionals involved in the delivery of personal services. Invasion of the privacy of the patient and crowding and confusion are to be avoided.

3. SERVICES PROVIDED IN THE HEALTH RESOURCES CENTRE

Required would be the complete range of personal and ambulatory health services necessary to deliver the range of progressive patient care in a practical way for the community concerned. This would include direct availability of services in some areas or categories, and in others immediate advice and practical instructions as to how these services might be obtained. Included would be emergency and urgent call arrangements, preventive and health maintenance service, and social and rehabilitation services. X-ray and other laboratory and clinical services would have to be available to all patients, but not necessarily in the health resources centres.

In order to provide this care, general practitioners and specialists would be required in various "mixes" with the general expectation based on the provision of primary care by the family physician. As pointed out above, there might be only one primary physician on the staff. Consultants should always be encouraged to consider the location of the health resources centre when planning the location of their own centres of operations and activities.

Nursing services available must include personal nursing care in the office, and the continuation of nursing care of the patient as he returns to his home and activities. Essential elements of this district nursing care include public health concerns and home bedside nursing, with special arrangements for hospital discharge, follow-up, rehabilitation, and care of the chronically ill and aged. As pointed

out above, there might be only one specially trained registered nurse on the staff of the health resources centre. Depending on service circumstances, other staff such as receptionists, registered nursing assistants, and others would be required.

In the opinion of the Sub-committee, dental services should be provided wherever possible. Special incentives might be provided for this attachment in geographic areas where the greatest need for additional dental services has been demonstrated.

Some of the same considerations apply to availability of social work services, particularly the advisability of extra incentives to attract social workers to health resources centres located in communities with a high level of demonstrable need for such services.

Recommendations 84, 85 and 86.

4. THE RELATIONSHIP OF THE HEALTH RESOURCES CENTRE TO OTHER PHYSICIANS IN DISTRICT PRACTICE

Centres would be set up to see if they could influence the delivery of primary care for the better rather than to compete with existing practices, but the centres might have a competitive edge in some ways.

Two general principles are suggested by the Sub-committee in thinking about relationships between the health resources centres and the practising profession.

(a) The centres are to be designated and partly supported by the public sector, and are to have, hopefully, an extended role into areas of concern regarding general health matters in the community in which they are located. In return they must have an obligation to provide all possible assistance, advice, and technical and staff assistance where possible to other district practitioners on request.

(b) The general requirements for designation as a health resources centre should be modest enough that a very large group of practices already in existence would qualify now or after the expenditure of some effort in order to meet the requirements.

These principles are in keeping with policy so far introduced in Ontario, under which conditions or recommendations for changes in the terms of service or delivery of health are applied and are available to everyone.

Recommendation 87.

5. OWNERSHIP OF THE HEALTH RESOURCES CENTRE AND PAYMENT OF STAFF

In the opinion of the Sub-committee, the question of ownership is an important but not a crucial issue. The main duty of government in this whole area is to encourage the health professionals as a group to render modern, effective, economical service up to an agreed baseline for all citizens of the province. This does not involve ownership of premises or payment for professional services by salary from the provincial treasury. Neither are these things ruled out if they are necessary to provide effective service. But the emphasis should be on the availability and quality of the services, and wherever possible the Government of Ontario should attempt to improve the delivery of such services by policies which will continually renew and assess the sense of responsibility of the various health professionals toward their patients.

From a review of these considerations, the Sub-committee concluded that the health resources centre might be owned by, leased or rented from others by:

(a) The medical staff or the health team as a whole;

(b) A group of patients or consumers;

(c) A university, hospital, health foundation, church, or other non-profit voluntary organization;

(d) The provincial government or other government sponsors such as the federal government, a federal-provincial body, a municipal or county government or other regional authority.

The Sub-committee was not generally in favour of government-owned facilities with all personnel on salary unless satisfactory service would otherwise not be available.

Some of the advantages of private or co-operative ownership of the health resources centre were thought to be:

(a) The possibility of a relatively greater capital cost recovery to the province;

(b) Better maintenance;

(c) Closer scrutiny of maintenance costs;

(d) Development of a secondary "pension effect" for the doctors and other professional staff.

It would also be possible to design a division of ownership so that certain components of the health resources centre were owned privately, while other components, e.g., a small emergency room, might be owned by the Ontario Hospital Services Commission.

Recommendation 88.

Much of the discussion about ownership in the section immediately above applies also to payment. Oversimplified, the debate over fees is that, in order to generate a high income, the fee-for-service office may see too many patients in too short a time so that standards of patient care may suffer, while on the other hand the office in which everyone is on salary may not work very hard and may not necessarily deliver high standards of care because everyone will be paid anyway. This debate is likely to continue and alternative methods of payment are likely to be tried. Among these are the fee-for-service with a guaranteed floor, fee-for-service prorated at over 100 per cent of the fee schedule if certain requirements are met, or capitation at a per patient fee negotiable annually, or combinations of the foregoing.

The principles underlying payment include the need to take some emphasis off the individual episode of illness, to insure that primary care is universally available in the area served by the centre, and to prevent extravagance. (See Part One, Section 13.)

The Sub-committee considered the financial and other arrangements of health care plans sponsored by some of the consumer groups, including the Kaiser Foundation in the United States, and

the co-operative clinics in Sault Ste. Marie and St. Catharines. These plans are trying to offer one alternative approach to moving the emphasis away from the episode of disease toward health maintenance, while maintaining the confrontation between the health professionals and their patients. The work of these clinics remains to be assessed. In general, the Kaiser plans lack universal applicability because they do not seek to cover the whole population; they include all major components of the hospital system, and they have not worked out a general relationship to important areas of community health such as a school health programme, and other special services.

The following specific suggestions regarding payment for some of the personnel in the health resources centres are offered as a baseline from which a practical beginning might be made.

Physicians and dentists should negotiate directly with patients (consumers) over standards of care and payment. The direct fee-for-service should be open as one alternative, but encouragement should be given for some health resources centres to embark on alternative plans for payment.

The payment of registered nurses practising in the health resources centre might be subject to direct subsidy by the provincial government on an initial or continuing basis (see Recommendation 13). Some nursing services might also be recoverable on a fee-for-service basis (see Recommendation 62). Public health nurses would be paid as at present through the medical officer of health, subject to renegotiation. Victorian Order and other visiting bedside nurses would be paid as at present.

A university component of salary would be payable to physicians, dentists, and nurses, if they were taking part in teaching activities within the centre (see Recommendation 18).

Social workers might be paid jointly by the group, local government, and the province. Other categories of staff would basically be paid by the group in most cases, but there might be some modifications depending on the overall method of payment for services rendered in a health resources centre as a whole.

Recommendation 89.

6. RELATIONSHIP OF THE HEALTH RESOURCES CENTRE TO THE MUNICIPALITY

The local municipal government may have a direct interest in the establishment of health resources centres, where these might make an active contribution to the solution of particular health problems appearing in a pattern or context likely to attract or suggest action at the municipal level. Among many examples might be mentioned the organization and availability of urgent call and emergency services, the abuse of drugs by children and young adults, and special needs of certain population groups, such as new immigrants, the aged, or workers in a particular industry who might be concentrated near the health resources centre. There is no reason why particular arrangements should not spring up between the municipality and a health resources centre, which might involve not only co-operation but special contractual relationships and reimbursement as well.

Recommendation 90.

7. RELATIONSHIP OF THE HEALTH RESOURCES CENTRE TO THE REGIONAL HEALTH SCIENCES COMPLEX

Elements in the regional health sciences complex, such as the university, health science faculties such as medicine, dentistry, or nursing, university teaching hospitals, may or may not be among the first proponents or sponsors of the establishment of health resources centres. Many of the centres should be involved in the field training of student professionals who will later have the opportunity to serve in the community delivery of health care. The degree of involvement and support from the health sciences complex would certainly depend on the amount of teaching going on. The health sciences complex would likely take a keen interest anyway, because of the new trends in the university outreach in general responsibility for community standards of medical care, continuing education, and the application of new advances. Health resources centres would provide a base for community research in a wide variety of disciplines represented in the health sciences complex.

Recommendation 91.

8. RELATIONSHIP OF THE HEALTH RESOURCES CENTRES TO THE PROVINCIAL GOVERNMENT

As stated previously in this report, the Government of Ontario has, as its major role in health care delivery, the improvement of standards of availability and quality, and the maintenance of high standards of professional responsibility, improved patient participation, and reasonable effectiveness and economy.

The province, therefore, has a particular interest in the establishment of health resources centres because they would provide:

(a) better facilities for "the acts of health";

(b) demonstration models of the team approach to the delivery of primary and community health;

(c) demonstration models of population or community oriented approach to the delivery of primary and community health;

(d) possible savings in hospital costs;

(e) provision of the local elements for developing concept of regionalization;

(f) base for teaching;

(g) district site for health care research.

Recommendation 92.

9. PROPOSALS FOR PROVINCIAL SUPPORT OF HEALTH RESOURCES CENTRES

First models should be located in a variety of areas: metropolitan, urban, rural, and remote.

Various forms of financial support should be studied, including the forgivable loan, the low interest term loan, and lease or lease-purchase agreements.

A critical series of requirements should be defined by the

provincial government after adequate consultation with representatives of all of the health professions concerned, and local communities and consumers. If a certain number or combination of these requirements were met, a community practice would be designated as a health resources centre, and resource support would then become available by an extension of the establishment-of-practice arrangements from the Health Resources Development Plan. This might be on an item by item basis from the following suggested list:

(a) The premises are purpose designed;

(b) Practice organization is demonstrated to meet the health needs of a defined area;

(c) Practice arrangements are described to meet the needs of a defined population;

(d) Emergency advice and urgent call services are to be provided;

(e) Professional functions are described for all staff professionals, including as a minimum one primary physician and one specially trained registered nurse;

(f) The practice offers practical plans for group programmes for patients with special problems in common;

(g) Practical arrangements are described for consumer discussions with office staff on a regular basis;

(h) The practice has clearly-defined teaching or research activities;

(i) Practical plans are described for regular, e.g., monthly, liaison with other professionals concerned with the delivery of primary care in the practice area (including the M.O.H.);

(j) Space is available at rental for reasonable periodic use by the public health nurse or medical social worker if attachments can be arranged;

(k) Plans are described for the operation of the practice according to sound administrative principles;

(l) Financial arrangements of more than one type offered for patient care are being studied;

(m) A stated programme is described for the continuing education of each category of professional health worker on the staff;

(n) Family physicians on staff are working towards certification by the College of Family Physicians of Canada;

(o) Acceptance is made of the principle of accreditation visits on a periodic basis.

Recommendation 93.

Appendix A

LIST OF MATERIAL CIRCULATED TO SUB-COMMITTEE ON COMMUNITY HEALTH CARE

APPENDIX A

List of Material Circulated to Sub-committee on Community Health Care

1. Summary of Activities of Ontario Council of Health.

2. Reports to Council:

   (a) Medical Manpower
   (b) Dental Manpower
   (c) Regional Organization

3. Reports of meetings of Sub-committees on Highly Specialized Services and Laboratory Systems.

4. Group Practice in Canada – the Canadian Medical Association, 1967.

5. Health is a Community Affair – the National Commission on Community Health Services, Harvard Press, 1966.

6. Regional Organization Report to Council, January 1969.

7. Medical Manpower Report, June 1968.

8. Dental Manpower Report, June 1968.

9. "Community-Care Units and Inpatient Units as Alternatives to the District General Hospital," by Peter Draper – *The Lancet,* December 30, 1967.

10. "Medical Technology and the Needs of Chronic Disease" – A review of some British studies on the organization of Medical Care Services, by Gordon Forsyth, B.A. Econ., and Robert F. L. Logal, M.D., M.R.C.P., Medical Care Research Unit, University of Manchester.

11. Studies of Medical Care Group Practice Plan in Ontario, P.R. 20.

12. Contemporary Themes, "A Joint Approach to Planning" by Milton Keynes, from *British Medical Journal,* March 8, 1969.

13. Organization and Delivery of Personal Health Services, Public Policy Issues, Kerr L. White.

14. Community Care Units, "What Should Be Done" by Peter Draper, from *Medical World,* March 1969.

15. "The Foundations of Family Medicine," by Ian R. McWhinney, M.D., from *Canadian Family Physician,* April 1969.

16. Survey of the Medical Profession in Ontario.

17. Excerpt from the report of the National Advisory Commission on Health Manpower, Vol. II, November 1967.

18. Background Paper – Ontario Medical Manpower.

19. Report to the Committee on Health Research, Lorraine A. Kramer, M.P.H., Director of Research, January 29, 1969.

20. "The Future of General Practice," by John H. Hunt, D.M., F.R.C.P., F.R.C.A., President of the Royal College of General Practitioners.

21. "A Study of Family Medicine in Upstate New York," by Gregory J. Riley, M.D., Carl R. Willie, M.D., and Robert J. Haggerty, M.D., *The Journal of the American Medical Association,* Vol. 208, No. 12, June 23, 1969.

22. "Administration and the General Practitioner," by John Fry, M.D., Lond. F.R.C.S., from *The Lancet,* December 2, 1967.

23. "Home Care in a Local Public Health Program," by B. T. Dale, M.D., D.P.H., and Margaret R. Braund, B.Sc., M.D., D.P.H., from

the *Canadian Journal of Public Health,* Vol. 59, August 1968.

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25. Community Group Health Plans – Commentary from *American Journal of Public Health,* Vol. 59, No. 1, Jan. 1969 – Part II.

26. Conference on Co-operation in Provision of Health Services – April 14-15, 1969 – Dr. R. F. Badgley.

27. Conference on Co-operation in Provision of Health Services – April 14-15, 1969 – Dr. J. B. Macdonald.

28. Summary of Dr. Badgley's comments at May 20th meeting, Sub-committee on Community Health Care.

29. Research in Community Health.

30. A Study of the Effect of Collaboration between Family Physician and Public Health Nurse – circulated at request of Dr. J. J. Day.

31. Health is a Community Affair – the National Commission on Community Health Services, Harvard Press, 1966 – Pages 196 to 223.

32. "Comprehensive Community Health Care" – Frederick D. Mott, M.D., C.M., C.R.C.P.(C) – *Canadian Journal of Public Health,* Vol. 60, April 1969, No. 4.

33. "The General Practitioner in a Multispecialty Group: Patterns of Practice" – Dr. A. Shardt, June 7, 1969.

34. Memorandum on the Primary Physician by Dr. McWhinney.

35. Clinical Sense, Social Sense, Common Sense – Dwight L. Wilbur, M.D. (Dr. Shackleton).

36. The Community Health Foundation of Cleveland – Bulletin of the New York Academy of Medicine – Vol. 44, No. 11, Nov. 1968.

37. The Montefiore Experience – W. B. Lloyd and H. B. Wise –

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38. The Public Health Nurse – pamphlet prepared by the Public Health Nursing Branch (Dr. Shakleton).

39. Total Attachment of Community Nurses to General Practices – Angus McGregor M.A., M.D., D.P.H. – *British Medical Journal,* Aug. 2, 1969 (Dr. Shackleton).

40. Evaluation of Health Centre Community Nurse Team – P. N. Dixon, M.A., M.B., D.P.H., E. Trounson, S.R.N., S.C.M., H. V. Cert., Q.N. – *British Medical Journal,* Feb. 1, 1969 (Dr. Shackleton).

41. The Role of the Nurse in Family Practice – *Journal of the College of General Practice of Canada,* Vol. 12/15, Dec. 1966 (Dr. Shackleton).

42. Continuity of Nursing Care – excerpt from *Health Bulletin for Montreal,* Vol. 54, No. 2, July-Dec. 1969 (Dr. Shackleton).

43. The Harvard Community Health Plan.

44. French and Polyclinic Medical School and Health Center Seminar "Health Center of the Future" – James A. Shannon, M.D., Chairman.

45. Metro Toronto GP's – Who, Where, How Many? – Dr. F. B. Fallis.

46. Ontario Health Resources Development Plan (OCH Secretariat).

47. Dr. McWhinney's memorandum, "Chief Needs for Community Health Care."

48. Report of Public Health Nursing at the Martin Luther King Health Centre in the South Bronx, New York City, by Ethel Irwin, Department of Health (Dr. Shackleton).

49. Policy and Planning for a Comprehensive Approach to Problems of Alcoholism in Ontario (with covering letter) (Dr. Fallis).

50. Diagnosis of the Urban Scene Today, R. L. Warren, Community

Funds and Councils of Canada, Advanced Seminar for Senior Council Staff, Geneva Park, Dec. 3-8, 1967 (Dr. Fallis).

51. Influencing Social Change in Community Mental Health, Sylvain Nagler and Saul Cooper, from *Canada's Mental Health,* Sept.-Oct. 1969, and "A Program of Action" (Dr. Fallis).

52. The Delivery of Health Care in Ontario – Past, Present and Future. Presented by Dr. K. C. Charron to the Section of Preventive Medicine, Academy of Medicine, Toronto, Oct. 15, 1969 (Dr. Fallis).

53. Summary – National Health Manpower Conference, by J. F. McCreary M.D., F.R.C.P.(C), Dean of Medicine, University of British Columbia (Dr. Fallis).

54. Two Ontario Department of Health Pamphlets – "Guaranteed Annual Income and Establishment of Practice Grants for Physicians and Dentists in Private Practice" and "Increased Bursaries for Undergraduate Medical and Dental Students" (Dr. Shackleton).

55. "How Does Comprehensive Health Care Relate to the Health Care Industry?" – Anne R. Somers, B.A., Princeton, New Jersey (Dr. Shackleton).

56. "The Future of Medicine" – "The Role of the Consumer" – John S. Millis, Ph.D., from *JAMA,* Oct. 20, 1969, Vol. 210, No. 3 (Dr. Shackleton).

57. "A General Medical Practice Using Nonphysician Personnel" by Kenneth D. Rogers, M.D., Mary Mally, M.S.S., and Florence L. Marcus, M.D., from *JAMA,* Nov. 18, 1968, Vol. 206, No. 8 (Dr. Shackleton).

58. Three bibliographies on articles re nurse attachments, etc., Canada, U.S.A. and Britain (Dr. Shackleton).

59. Metropolitan Toronto Hospital Profile – December 1969 (Dr. Fallis).

60. Community Health Centres – Their Background and Their Achievements, Frederick D. Mott, M.D. (Dr. Lang).

61. "The University and Primary Medical Care" by Robert J. Haggerty, M.D. – from the *New England Journal of Medicine,* Aug. 21. 1969 (Dr. Fallis).

62. "Impact of Ambulatory-Health-Care Services on the Demand for Hospital Beds" – A Study of the Tufts Neighbourhood Health Centre at Columbia Point in Boston, by Seymour S. Bellin, Ph.D., H. J. Geiger, M.D., and Count D. Gibson, M.D., from the *New England Journal of Medicine,* Apr. 10, 1969 (Dr. Fallis).

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Appendix B

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APPENDIX B

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2. Discombe, George. "The Organization of the National Health Service: Progress and Problems," *Lancet,* November 13, 1965, p. 1007.

3. "Group Practice, Health Centre, or Both? Huntly and Hythe," *B.M.J.*, December 11, 1965, p. 1425.

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1. Wofinden, R. C. "George Health Centre, Bristol," *Nursing Times,* July 29, 1966, p. 1005.

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1967

1. "Professor Wofinden on Health Centres," *The Medical Officer,* January 6, 1967, p. 1.

2. "Minister of Health Evidence to Royal Commission on Local Government in England," *The Royal Institute of Public Health and Hygiene Journal,* January/February, 1967, p. 1.

3. "More Health Centres to be Organized," *Public Health and Hygiene Journal,* March/April, 1967, p. 33.

4. Wofinden, R. C. "Health Centres and the General Medical

Practitioner," *B.M.J.*, May 27, 1967, p. 565.

5. Conference on Health Centres. *The Medical Officer,* June 2, 1967, p. 304.

6. Richards, T. D. "Letter on Health Centres," *B.M.J.*, June 10, 1967, p. 703.

7. Health Centres: Are they the Answer to the Increasing Work-load of G.P.'s?

   (a) Sluglett, J. "Health Centres: A New Concept in General Practice," *Royal Society Health Journal,* July/August, 1967, p. 193.

8. Health Centres: Are they the Answer to the Increasing Work-load of G.P.'s?

   (b) Gillet, J. A. "Health Centres – a Second Chance," *Royal Society of Health Journal,* July/August, 1967, p. 196.

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11. "The Minister Opens Oxford's New Health Centres," *The Medical Officer,* December 22, 1967, p. 319.

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13. "Family Doctors Practising from Health Centres," *B.M.J.*, December 30, 1967, p. 800.

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1. Miller, W. R. and I. G. McLean. "General Practice from Scottish Health Centres – Some Facts and Figures," *Health Bulletin,* Scottish Home and Health Department, January 1968, p. 15.

2. "Letter on Health Centres," *B.M.J.*, February 10, 1968, p. 383.

3. Warin, John F., "Health Centres in Oxford," *The Medical*

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5. Soutar, K. A. "A Survey Health Centre," *The Medical Officer,* March 1, 1968, p. 121.

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8. Thompson, William, "Health Centre in a New Town," *British Hospital Journal and Social Service Review,* May 17, 1968, p. 902.

9. McQuillan, W. J. "The Organization of Medical Care in New and Expanding Towns," *Royal Society of Health Journal,* May/June, 1968, p. 141.

10. "Vocational Training and the Health Centre," *B.M.J.,* June 15, 1968, p. 641.

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2. "Group Practice: M.P.U. Evidence as presented to the Sub-committee of the Standing Medical Advisory Committee," *Medical World,* February 14, 1969, p. 6.

3. "A New Framework for Community Care," *British Hospital Journal and Social Service Review,* February 21, 1969, p. 360.

4. Draper, Peter. "Community Care Units - What should be done?"

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5. "Health Centres Progress," *The Medical Officer,* July 25, 1969, p. 57.

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7. "Two Unusual Health Centres," *The Medical Officer,* June 13, 1969, p. 331.

8. Thompson, William, "Eight Scottish Health Centres," *The Medical Officer,* August 29, 1969, p. 128.

9. "Where are the Health Centres?" *British Hospital Journal and Social Service Review,* September 12, 1969, p. 1686.

10. Beaner, M. W. and H. I. Lockett. "Health Centres – Some Thoughts on Health Centre Planning based on Problems and Difficulties encountered in a Large Health Centre," *The Medical Officer,* September 12, 1969, p. 145.

11. Ellis, E. W. W., M. D. Forster, M. A. H. Graham, D. L. Almond and V. M. E. Montegriffo. "A Modern Group Practice," *The Practitioner,* Vol. 203, September 1969, p. 344.

12. Curwen, Michael and Brian Brookes. "Health Centres: Facts and Figures," *The Lancet,* November 1, 1969, p. 945.

BIBLIOGRAPHY OF HEALTH CENTRES IN COUNTRIES EXCLUDING CANADA, U.S.A. AND BRITAIN

1. **Czechoslovakia**

(a) Chicanot, E. L. "Health Programs Around The World"

Describes the country's system of health services rebuilt after the Russian occupation in 1945. Health care is free to all, available through *polyclinics,* factory health centres, and health institutions for mother and child. Rural communities are served with community health centres and medical posts.

(b) Troupin, James L. "Medical Care and Public Health in Finland, Soviet Union, *Czechoslovakia,* Yugoslavia." *American Journal of Public Health,* Vol. 59 (4): 705-10, April 1969.

Describes the integrated services (social, preventive, and curative), which operate at three interlocking levels: local, district, and regional.

2. **Yugoslavia**

(a) Chicanot, E. L. "Health Programs Around The World"

Reports of the drastic modification of socialized medical services in 1961. Describes rural health centres, each with a maternity and child welfare centre, a school polyclinic, a dispensary for tuberculosis, and a clinic for venereal disease.

(b) Troupin, James L. "Medical Care and Public Health in Finland, Soviet Union, Czechoslovakia, *Yugoslavia." American Journal of Public Health,* Vol. 59 (4): 705-10, April 1969.

Describes the local (Health Sub-centre) and district (Public Health Centre) levels of health care. Comments on the need for "integrated" personnel and medical education geared to this need.

3. **Finland**

(a) Chicanot, E. L. "Health Programs Around The World"

Reports that maternity and child health centres are mandatory in every municipality and rural commune. Describes the division of the country into medical districts for delivery of specific hospital care (mental, tuberculosis, and general medical); each district has its own central hospital or sanatorium.

(b) Personen, Nilo. "Organization of Medical Care and Public Health Services in Finland." *World Hospitals,* Vol. 2 (2): 92-94, April 1966.

Describes the decentralized system of hospital care to provide uniform medical care to all parts of the country. Briefly reports on the maternity and child health centres available free of charge to patients.

4. **Bulgaria**

Chicanot, E. L. "Health Programs Around The World"

Briefly reports of the widespread system of hospitals and polyclinics, maternity homes and pharmacies – medical care is fully accessible to the entire population.

5. **Poland**

Chicanot, E. L. "Health Programs Around The World"

Briefly describes the network of dispensaries (town) and health centres (rural) across the country. Larger industrial centres have their own health service (general dispensary, doctor and infirmary).

6. **Hungary**

Clyne, M. B., and Hopkins, P. "Hungarian Health Service." *British Medical Journal,* 1:116-118, January 1965.

In this article the authors report on their two-weeks stay to study the Hungarian Health Service: the invitation was given by the Hungarian Health Workers' Union.

Describes the organizational scheme of the Health Service. The district doctors, *polyclinics,* hospitals, and university teaching hospitals as well as paediatric and obstetric services are all organized regionally. Reports on other medical services to special groups (intensive industrial health service, school medical, sports medical) are included.

7. **Mexico**

Chicanot, E. L. "Health Programs Around The World"

A section describes the two new comprehensive family welfare centres opened in Mexico City in 1962 and 1963. Smaller settlement houses and medical social missions are concerned with preventive medicine, educational and social programmes, as well as first aid.

8. **Russia**

(a) Yerby, Alonzo S. "Medical Care in the Soviet Union." *Medical Care,* Vol. 6(4): 280-5, July-August 1968.

The author reports on his three week visit to Russia (Moscow, Leningrad, Kiev) in 1967. The delegation of two was sponsored by the Public Health Service under the agreement for the exchange of cultural and scientific missions between the U.S.A. and the U.S.S.R.

Reports that health services are free, available, and generally accessible to all; the system is not family-centred as care is received from a variety of sources. Polyclinics are mentioned but not described in detail.

(b) Barton, Walter E. "Admission Into the Treatment System." *The American Journal of Psychiatry,* Vol. 125(5): 644-49, November 1968.

The author was a member of a United States mission on Mental Health which visited the Soviet Union in 1967. The delegates gave a report of their impressions at the American Psychiatric Association annual meeting in May 1968.

Describes the facilities for admission into Health Care services in the U.S.S.R. and how the components operate. The primary unit

is the Polyclinic (separate ones for children), which supply a comprehensive health care service available and free to all. Commented in 1961 there were 21,000 polyclinics in Russia and 7,000 in the Ukraine.

(c) Field, Mark G. *Soviet Socialized Medicine, An Introduction.* New York: The Free Press, 1967, Chapter 7, 132-157.

In this chapter on clinical facilities and services (primarily in urban areas) the polyclinic is described as providing a wide range of clinical and diagnostic services on an out-patient basis. The industrial medical network is described, also the programmes for specific diseases, and maternity and child specialized institutions.

9. **India**

Ranganna, M. G.; Prasad, B. G.; Bhatnagar, J. K. "A Study of Medical Care Services provided by the Primary Health Centre, Sarajine Nagar, Lucknow, India." *Medical Care,* Vol. 6(5): 412-19, September-October 1968.

Briefly reports there are 4,898 primary health centres in India to meet needs of the rural population.

Describes a study on productivity (workload on the staff at the centre); morbidity patterns among out-patients and in-patients, and the time spent by each patient at the centre and in its various departments. An attitude survey on utilization and reactions of a random sample of villagers to the health care services was also reported.

10. **Israel**

(a) Medalie, Jack H.; Mann, Kalman J. "Methodological problems in a six year follow-up of a family and community health centre," *Journal of Chronic Diseases,* 19(1): 17-33, January 1966.

Describes the new approach of the community health centre in Jerusalem whereby the whole population was entitled to receive comprehensive care at the centre, as compared to the national pattern of separate services (curative clinics, schools, mother and child). Evaluates the programme after a six year period by comparing local and national figures (mortality, morbidity and hospitalization). The comprehensive care cost was within the

range of the separate services.

(b) Chicanot, E. L. "Health Programs Around The World"

Describes the dispensary (first-aid station – central clinic), and the mother-infant stations, upon which the Kupat Holim (sick fund) institution has based its work. Briefly reports on the new medical centre in Jerusalem which will be the primary medical, teaching, and research institution for Israel.

11. **Taiwan**

Hsu, S. C. "The people build Health Stations," *International Journal of Health Education,* Vol. 6(2): 81-6, April-June 1963.

Describes the community reconstruction 15-year programme which resulted in an extensive network of health stations in Taiwan and proved so successful it is now accepted as a basic governmental responsibility.

12. **China**

Chicanot, E. L. "Health Programs Around The World"

Describes the health care system since the Communist regime took control in China in 1949. Health insurance, training of physicians in both traditional and Western medicine, is discussed. A medical care system is reported as having three levels of care, the third or most sophisticated being similar to the big medical centres in North America.

13. **Turkey**

(a) Gurcay, Ali Aydemir. "Hospitals and Health Services in Turkey" *World Hospitals,* Vol. 2(2): 119-25, April 1966.

Reports that a complete network of health units is being formed to cover the *whole country* in accordance with a law passed in 1961. It is planned that each district (7-10,000 inhabitants) be served by a health centre and two to four clinics. This scheme is now in operation in the rural provinces of Eastern Turkey and the whole population of the area is provided with a comprehensive free health service.

(b) Goodman, Neville M. "Turkey's Experiment in the Socialization of Medicine." *The Lancet 1*(7323): 36-8, January 1964.

The author's visit to Turkey was sponsored by the Department of Technical Co-operation under H.M. Government's programme of technical assistance to member countries of the Central Treaty Organization. Describes the pilot project of a complete network of preventive and curative services (by means of health units) in the Province of Mus. Extension of services to the whole country is planned: the scheme in Mus is clearly a success.

14. **Scandinavia**

Birdwood, George "Scandinavian Developments in General Practice." *British Medical Journal,* 1969, 4, 737-740.

(a) **Sweden**

In this article the author reports that although group practice is generally uncommon in Sweden, the Swedish Medical Association has sponsored the building of "Laekarhusen" (central offices and diagnostic facilities) in some of the large towns. Another development, the Health Service Research Centre at Dalby, opened in 1968, is described. This centre is divided into two parts, a general practice centre serving the 8,500 people in the neighbourhood and a research section which also includes screening in its programme.

(b) **Norway**

Describes a new group practice centre in Hokksund (one of the first purpose-built group centres), its services and facilities. The group practice at the University Institute of General Medicine, in Oslo, is reported as a general practice and teaching institute: other institutes are planned.

15. **Rumania**

Chicanot, E. L. "Health Programs Around The World"

Describes the country's health system before and after the communist reform in 1948. The goal was to have at least one doctor in each rural commune and to have one hospital centre in each district.

BIBLIOGRAPHY OF NURSING ATTACHMENTS IN CANADA

1961

1. Gubbay, E. R. and Barry T. L. "Home Care Service of the Reddy Memorial Hospital." *Medical Services Journal, Canada,* XVII (1) 10-17, January 1961.

   Describes a home care service which provides an extension of hospital treatment in a patient's home. Service is geared mainly to patients with limited financial resources and is essentially one of long term care. Personnel included are the intern, the V.O.N. Nurse, the physiotherapist and the social worker.

2. Johanneson, Freda, "Pilot Project in Hospital Home Care." *Medical Services Journal, Canada,* XVII (1): 29-31, January 1961.

   Briefly describes a pilot project carried out by Ottawa District D.V.A. with a few patients suffering long term illness. Necessary class relationship between medical and social services is brought out.

3. McGraith, Kate M. "The role of the Victorian Order of Nurses in Organized Home Care." *Medical Services Journal, Canada,* XVII (1) 32-35, January 1961.

4. Pequegnat, L. A. "Pilot Home Care Program of Toronto." *Medical Services Journal, Canada,* XVII (1): 18-28, January 1961.

   Briefly describes a community-based home care programme where the family physician is the controlling person in a given case and in which voluntary community services are used. Home care is not seen as a substitute where hospital care best meets need but is seen as a means of lowering rates of hospitalization. Difficulties in administering a community-based as opposed to hospital-based programme are outlined.

5. Percy, Dorothy M. "A New-Old Dimension in Patient Care."

Medical Services Journal, Canada, XVII (1): 1-9, January 1961.

Examines the question of home care for some patients at same stage in their illness and describes three basic types of home-care programmes – hospital based, agency or community based, and those designed for teaching medical students. Outlines some U.S. and Canadian home care programmes.

1963

1. Barter, Marion I. "The Pilot Home Care Program of Toronto." *Canadian Journal of Public Health,* 54 (2): 55-62, February 1963.

   Evaluates the Toronto experiment at the end of its fourth year of operation. Author feels that the project, community-based, has added to the weight of fact and opinion that its programme provides a partial answer to the problem of hospital waiting lists and of providing care for patients that otherwise would not have been available.

1964

1. Freeman, Ruth B. "Teamwork in Public Health." *Canadian Journal of Public Health,* 55 (9): 380-385, September 1964.

   Examines the purpose of the public health effort and views it as a multi-discipline and expanding team synthesizing all available scientific educational and social skills. Characteristics of and conditions necessary for teamwork, as well as problems implementing teamwork, are brought out.

2. Charter, Christine E. and Branch, Elizabeth. "Providing Continuity of Care." *Canadian Nurse,* 60 (11): 1073-1074, November 1964.

   Examines the continuity of care programme in which Victorian Order Nurses participate in Vancouver. Points out areas where the V.O.N. found gaps in the continuity, such as the establishment of a male visiting nurse programme.

3. Crane, Lavinia M. "A design for Home Care." *Canadian Nurse,* 60 (11): 1075-1080, November 1964.

Examines the scope of home care from simple medical and nursing services to a complex of many skills to meet particular needs. Author sees the local public health unit as the administrative and co-ordinating centre for any home care programme.

4. Leask, Jean. "A Room With a View." *Canadian Journal of Public Health,* 55 (11): 465-471, November 1964.

Paper discusses: The changing role of visiting nursing in the development of public health programmes across Canada; some projects undertaken or considered by the V.O.N.; and some of the possibilities for new services and new patterns of organization for the future.

1965

1. Lovelock, Pamela. "Sick Children at Home." *Canadian Nurse,* 61 (8): 623-627, August 1965.

Describes a three-year pilot project (at the end of one year's operation) which has been designed to meet the needs of children. The pediatric home care programme gives the nurse an opportunity to give family centred care and health education. Team personnel consists of a part-time medical director, a part-time social worker, a full-time nursing co-ordinator and a full-time secretary. Hospital and community services are used in administering services.

1966

1. Mossing, Jeanette. "Nursing Case Work." *Canadian Nurse,* 62 (6): 54-55, June 1966.

Describes the use of the services of a registered nurse as a case worker in a community clinic. Clinic case worker's role is to assist the physician in care of the patient, give supportive nursing care and act as a resource person. This service is seen to bridge a gap between hospital care and public health nursing.

2. Benson, K. I. G. and Crane, Lavinia. "Home Care – Why the Hesitancy?" *Canadian Journal of Public Health,* 57 (7): 289-294, July 1966.

Critically looks at the hesitancy of many official health agencies

to provide or encourage the development of home care services. Examines the benefits of such services and specifically points to programmes in B.C. Co-ordination of community resources in co-operation with hospitals and medical staff is the key to the extension of successful home care.

3. Editorial. "The Role of the Nurse in Family Practice." *College of General Practice of Canada Journal,* 12 (15): 31-32, December 1966.

   Points out that there may be positive values from the general practitioner sharing a larger percentage of his professional duties with the public health nurse and perhaps with some general nurse. Problems of conditioning the medical community and the patient to recognize an expanded nursing role is pointed out.

1967

1. Wolfe, Samuel and Teed, Genevieve. "A Study of the Work of a Medical Social Worker in a Group Medical Practice." *Canadian Medical Association Journal,* 96 (21): 1407-1416, May 27, 1967.

   Describes an exploratory study made in an urban community to demonstrate the role, the work and the relationships of a full-time medical social worker in a group medical practice. The study found serious gaps in necessary services in the community, suggesting the need for new or expanded agencies. The teamwork between Social Worker and Doctor allowed a better understanding of patients through shared ideas.

2. Morison, Joan D. "Teaching Nurses in a Child Health Program." *Canadian Journal of Public Health,* 58 (11): 518-519, November 1967.

   Describes the development of nursing students' ability to assess patient needs and to plan appropriate care. A team of pediatrician, public health nurse, and social worker share service and teaching responsibilities. Provision of a well child care service is base for preparing students to function in a comprehensive health care team.

1968

1. Finkel, K. C. and Pitt, Shirley E. "Pediatric Home Care

Program." *Canadian Medical Association Journal,* 98 (3): 157-164, January 20, 1968.

Describes a home care programme initiated at the Children's Hospital, Winnipeg. The aim of the programme was to provide service that would (a) prevent unnecessary admissions to hospital, (b) accelerate discharges from hospital and (c) raise the standard of medical care in the community for patients with chronic debilitating illness. Patient's own doctor maintained responsibility but patients were eligible for nursing, physiotherapy, equipment, transportation and drugs. Comments are made about potential of a pediatric home care programme for community service, teaching and research.

2. "Doctor Hires V.O.N. to give post-natal Supervision." *Canadian Nurse,* 64 (6): 17-18, June 1968.

   Briefly describes one doctor's experiment in having a V.O.N. provide post-natal supervision and health teaching in place of regular 2-week and 4-week post partum office visits. Reports on doctor's and patient's satisfaction with the service.

3. "Continuity of Nursing Care." *Health Bulletin, Montreal,* 54 (2): 30-48, July-December, 1968.

   Examines the question of what continuity of nursing care means under the concept of "illness." Presents the public health nurse as offering a kaleidoscope of services.

4. Jones, Phyllis E. "The Public Health Nurse and General Practice." *Canadian Nurse,* 64 (7): 43-44, July 1968.

   Briefly describes a project where a public health nurse employed by the East York Unit (Toronto) was selected to work closely with four general practitioners. Nurse did not serve a geographic area but only doctor's patients within the unit's boundaries. Another sees value of the project as an opportunity to provide data that may have implications for future planning of health services.

5. Dale, B. T. and Braud, Margaret R. "Home Care in a Local Public Health Program." *Canadian Journal of Public Health,* 59 (8): 302-304, August 1968.

Briefly describes a home care programme initiated in Wellington County. The programme is administered by the V.O.N., and bedside nursing, a homemaker service, physiotherapy, laboratory services, drugs and hospital equipment are provided for those who can be cared for at home. Patient's physician is responsible for medical care and deciding upon services. In addition to the benefits to patients, findings showed large savings in hospital days because home care was available.

6. Brown, Milton H. "Home Care Program for Metropolitan Toronto." *Canadian Family Physician,* 14 (12): 49-52, December 1968.

   Briefly examines the growing use of home care programmes. Specifically examines the administration and operation of the Home Care Program for Metropolitan Toronto. Function of the programme is to co-ordinate the services to assist the patient to receive maximum benefits from care and rehabilitation. Author sees a continued need for interpretation of such programmes to the medical profession.

1969

1. Jones, Phyllis E. "The East York Public Health Nursing Project." *Canadian Journal of Public Health,* 60 (6): 242-246, June 1969.

   Describes a two-year exploratory study where public health nursing staff, employed by a local health unit, were assigned to families receiving medical care from designated medical practitioners. Resulting requests for nursing service were largely related to pregnancy, preschool children and to older adults, with long term illnesses being managed on an ambulatory basis. Nursing actions seen as of most value were teaching, counselling, assessing health needs and co-ordinating services. Some implications of findings are discussed.

2. Day, J. J., Barrett, P. R., Craig, W. F. and Woods, S. "A study of the effect of Collaboration between Family Physician and Public Health Nurse." *Canadian Family Physician,* 15 (8): 65-68, August 1969.

3. Mills, J. G. and Randi, W. J. "Family Physician and Public Health Nurse: A Proposed System of Care." *Canadian Family Physician,* 15 (8): 71-73, August 1969.

Examines the concept of providing maternal and child care in the same setting through practitioner and public health nurse services. While the role of each cannot be precisely defined, basically, the nurse is seen as an educator and additional health care person through pregnancy. Analysis of time spent in care from conception to school is presented.

4. Jones, Phyllis E. and Brody, Doreen M. "Family Health Service: the P.H.N. and the G.P." *Canadian Nurse,* 65 (9) 38-40, September 1969.

   A sequel to the previous articles on a public health nurse attachment to a group of family doctors in East York, which confirms the findings that a public health nurse is most useful in dealing with expectant mothers, preschoolers, geriatric and chronic patients.

1970

1. Hutchison D. A. and Mumby, Dorothy M. "Public health nurses work with family physicians," *Canadian Nurse,* 66 (1): 28-30, January 1970.

   An excellent report of the work of public health nurses working exclusively with groups of family doctors in London, Ontario – the work load is mainly with expectant mothers and preschool children. The difficulty of arranging for regular conferences with the physicians is stressed.

BIBLIOGRAPHY OF NURSING ATTACHMENTS IN U.S.A.

1956

1. Silver, George A. "Family Health Maintenance." *Public Health Reports,* 71 (10): 1019-1021, October 1956.

   Briefly reports on the beginnings of a research demonstration in health promotion and preventative medicine at Montefiore Hospital. Health team is composed of a physician, a public health nurse and a social worker. The roles of the nurse and social worker in giving support physically and emotionally are outlined.

1960

1. Freidson, Eliot and Silver, George A. "Social Science in Family Medical Care." *Public Health Reports,* 75 (6): 489-493, June 1960.

   Describes an experiment in medicine using a health team and two groups, on a matched control over a 4-year period. Part of experiment was to determine what health education and promotion techniques would influence family health. A social scientist sought to study the relation of the organization of medical practice to the behavior of patients.

1963

1. Blaisdell, C. Byron. "The Community Nurse as an Aid to the Physician." *Public Health News,* 44 (5): 124-125, May 1963.

   Presents a doctor's brief comments on the role of the community nurse and seeks to show a doctor's present dependence on her.

1964

1. Guthrie, Nobel; Runyan, John W.; Clark, Glenn; and Marvin, Oscar. "The Clinical Nursing Conference. A Preliminary Report." *New England Journal of Medicine,* 270 (26): 1411-1413, June 25, 1964.

Describes the purpose and inauguration of clinical nursing conferences. Patients are selected by referral from those attending a general medical clinic. Conferences are seen to work well within the concept that the nurse is not trained to diagnose and treat patients but to follow doctor's orders and make and record observations of patients progress.

1965

1. Siegal, Earl; Dillehay, Ronald; and Fitzgerald, Carole J. "Role Changes Within the Child Health Conference." *American Journal of Public Health,* 55 (6): 832-841, June 1965.

   The attitudes and professional preparedness of personnel concerned with child health conferences in California were studied with respect to proposed changes in their roles. Nurses generally favoured an expanded role for their discipline, but two-thirds of the physicians were opposed. Positive attitudes regarding role changes were expressed; however, there was still recognition of concerns.

1966

1. Ford, Patricia Ann; Seacat, Milvoy S.; and Silver, George A. "The Relative Roles of the Public Health Nurse and the Physician in Prenatal and Infant Supervision." *American Journal of Public Health,* 56 (7): 1097-1103, July 1966.

   A paper describing an ongoing study intended to broaden prenatal and well-baby services by using a public health nurse with obstetrical and pediatric experience. Reactions of patients and professionals are discussed, and aspects of the nurse's role analyzed.

1967

1. Beloff, Jerome S. and Weinerman, E. Richard. "Yale studies in Family Health Care. I. – Planning and Pilot Test of a new program." *Journal of the American Medical Association,* 199 (6): 383-389, February 6, 1967.

   Describes a project at the Yale New Haven Medical Centre in an effort to explore new methods in the provision and teaching of family health maintenance. The project was also to evaluate the

complex of health maintenance services to families using the concept of the health team. Evaluation methodology was developed for family functioning, student teaching and the effectiveness of this medical care system.

2. Silver, Henry K., Ford, Loretta C. and Stearly, Susan G. "A Program to Increase Health Care for Children: The Pediatric Nurse Practitioner Program." *Pediatrics,* 39 (5): 756-760, May 1967.

   Describes an educational and training programme in pediatrics for professional nurses which has been developed to provide increased health care for children in rural and urban areas. Details of the educational and training programme and its implications in improving the utilization of scientific manpower are described.

3. Silver, Henry and Ford, Loretta. "The Pediatric Nurse Practitioner in Colorado." *American Journal of Nursing,* 67 (7): 1443-4, July 1967.

   Briefly describes the establishment of a programme designed to expand the role of the pediatric nurse in total care of the well child and in care of children with relatively minor illnesses. Programme is less concerned with the transfer of functions from one professional to another and more interested in establishing a more effective, meaningful and productive inter-relationship.

4. Hanehett, Effie and Torrens, Paul R. "A Public Health Home Nursing Program for Outpatients with Heart Diseases." *Public Health Reports,* 82 (8): 683-688, August 1967.

   A 2½ yr. study was conducted at St. Luke's Hospital Center in New York City to determine if the rate of admission to the hospital for congestive heart failure could be reduced by adding anticipatory public health nursing follow-up to the out-patient clinic routine. An outline of the nursing needs for patients is given. Results showed the rate of admission for 126 group study patients was lower than that for the 113 control group patients.

5. Stearly, Susan; Noordenbos, Ann and Crouch, Voula. "Pediatric Nurse Practitioner." *American Journal of Nursing,* 67 (10): 2083-2087, October 1967.

   The authors, pediatric nurses involved in the programme

They first check the most frequently failing component and move systematically from possibility to possibility, but according to a probability ranking, until the trouble is pinpointed. In clinical medicine, the experienced clinician usually establishes the diagnosis with a minimal number of steps, using past experience as a basis for a PROBABILISTIC approach. In symbolic modeling this mental discipline is perhaps somewhat difficult at first, but once learned it is of great value. The clinician, inexperienced with this methodology, is first quite reluctant to accept this method of explicating, i.e., step by step simplifications until standard symbols can describe the entire process. For instance, when we offered to assist a psychiatrist in flow charting his thought process when he received a telephone call on a suicide attempt, the clinician was first doubtful, then outright resentful, that the "innumerable possibilities" could be entirely reduced to a few symbols.

Flowcharting is a graphic presentation of the salient steps in a process. The symbols state the *involvement of various persons;* define *their competence level;* describe *the data acquisition;* which lead to *decisions;* followed by *action(s);* in time dimension; recorded on specific *documents.*

The emphasis is on where who does what – exactly the elements of systems analysis. The symbols presented here originate from computer-oriented flow charts. Our contribution is only to provide the medical content information wherever applicable. The following symbols have been used in our systems analysis efforts:

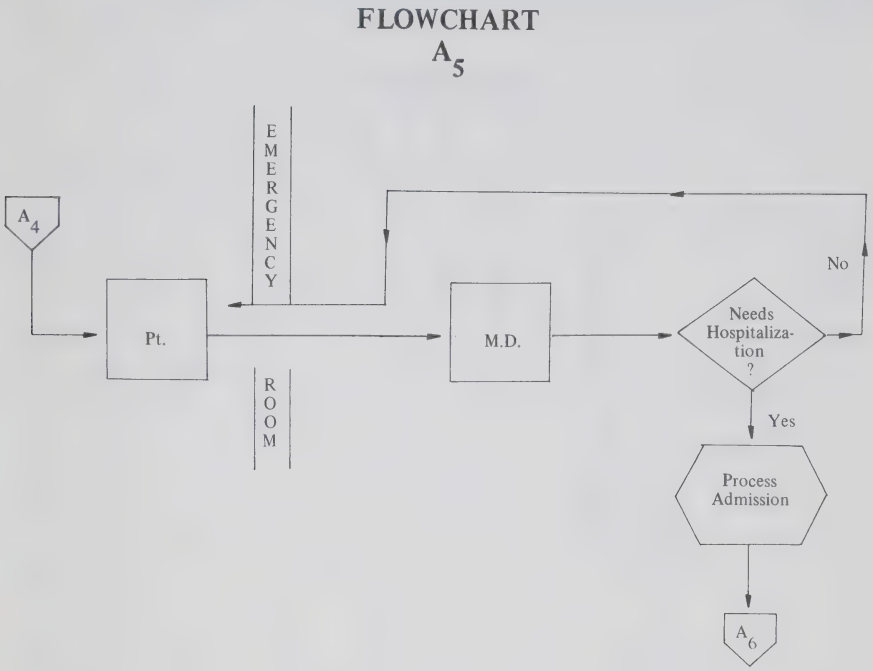
SYMBOL	MEANING	COMMENTS
	start or stop	This often indicated dead-end paths with no further steps along this line.
	Off-page sign	A process to be described is, of course, preceded by steps, and the process will continue in steps which are not the concern for examining the

SYMBOL	MEANING	COMMENTS
	Off-page sign (cont'd)	process in question. Off-page signs indicate that we artificially start our model at this point, or end our model at this point. For further details see another flow chart as indicated inside the symbol. The function parallels information stated at the edges of a map indicating where the adjacent areas can be found.
	Person	This may be defined in general terms, e.g., a physician (M.D.) or can be very specific indicating which particular physician is involved.
	Data acquisition	This may be history taking, observation or measurement, e.g., laboratory test. The scope of data must be specified as analysis progresses.
	Delay	This represents a break in the time dimension. For instance, if a test or observation requires a certain time lapse, the diagram indicates a discontinuity of the process. As analysis progresses the typical time delay must be specified.

SYMBOL	MEANING	COMMENTS
	Decision	This is, perhaps, the most important symbol. Many of our medical decisions actually represent a chain of decisions. For instance, the decision to hospitalize a case contains at least 5 decisions. A decision symbol always contains a question and the sign "?" is always included. The outcome of a decision is typically a YES or NO, or, > or <, (greater than, or smaller than). In some instances a third answer is also acceptable which is neither YES or NO, but somewhere in between.
	Implementation	Represents a well-defined action to execute the decision.
	Event flow	This is also the chain of thoughts, chain of events, a one-way street in the diagram. The arrow at the end of this line indicates the direction.
	Branching	Sometimes several steps occur simultaneously and the flow of events is represented by the symbols at the tips of the arrows. Branching may lead to 2, 3, or more symbols.

SYMBOL	MEANING	COMMENTS
	Information flow	This symbol is used when event flow is not the same as information flow.
	Document	Data are recorded on some form. This may indicate actual manual recording or any other form of entry of data into the computer.
	Punch card	These are various computer-oriented storage media.
	Paper tape	
	Magnetic tape	
	Disk	
	Film	
	Drum	

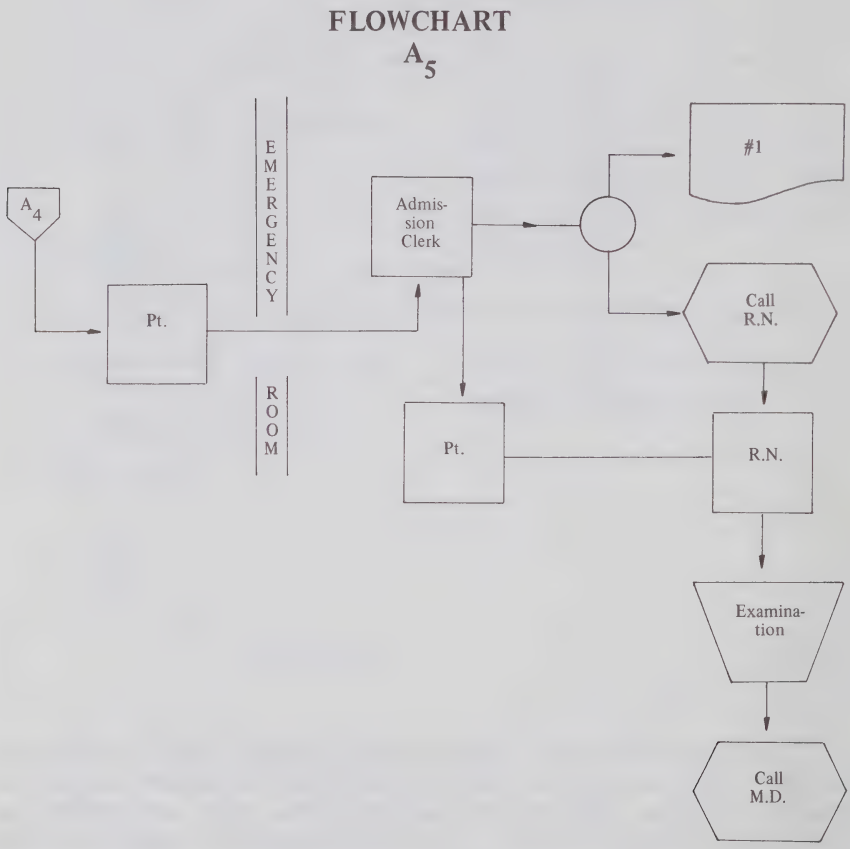
Let us begin the practice of flowcharting with a simple example to illustrate the use of these symbols.



This simple flowchart begins with Off-page sign A_4 indicating that the story we are studying begins when the patient enters the emergency room. All events preceding this step are shown on flowchart A_4 where the role of the ambulance, the events between the accident, and the entry of the emergency room are described in detail. A physician (note the absence of specific data which physician, hence his competence definition is also lacking) makes a decision: NEEDS HOSPITALIZATION? The outcome of this decision is either YES or NO. If NO the patient leaves the emergency room, whereas the YES outcome will be followed by implementation, i.e., processing the case through the admission routine. There, off-page symbol A_6 indicates that subsequent steps are described in flowchart A_6.

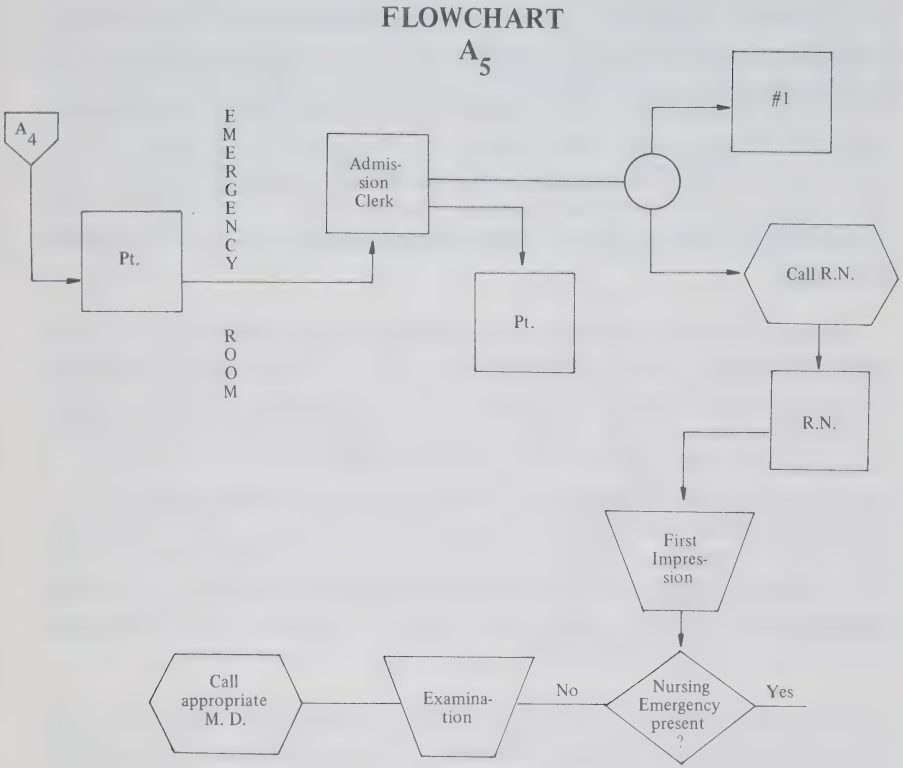
Soon this simple flowchart proves inadequate. Several other

people will be involved, e.g., the Admission Clerk and the EMERGENCY ROOM Nurse. Systems analysis revealed that the chain of events is far more complex than the first flowchart has indicated. Therefore, we design a more detailed flowchart as follows:



This incomplete diagram (note: no terminal symbols, e.g., Off-page or STOP symbol at the lower end) shows that the Clerk is any of the Admission Clerks, with no preference, meets the patient, issues a document (the Admission Form), and simultaneously notifies the nurse about the presence of a patient. According to this design, no specific nurse is indicated to receive the message that a patient has entered the emergency room. At this, numerous finer

details emerge, shown on the next diagram.



This design recognized that the nurse has certain competence to act on an emergency basis. For instance, if the patient's extremity is bleeding profusely, the application of a tourniquet is an emergency step performed by the nurse. Also, if the fracture is unsupported and causing severe pain, the nurse will position the extremity to reduce the pain. This diagramming, of course, calls for joint meetings between the systems analysis team and the emergency room physicians and nurses to develop the catalogue of emergencies necessitating nurse's action prior to any medical involvement. The analysis of this particular step also reveals the necessity of substantial medical and nursing input to define current practices. While at it, the same team will inevitably begin to DESIGN a better system. The bottlenecks, deficiencies and/or information barriers become quite apparent during the course of this analysis, and a PRESCRIPTIVE

attitude evolves.

The team may involve the appropriate senior members of related departments to develop the optimized procedure. For instance, if there is an obstruction of the airway, what is the proper measure to be taken by the nurse? Should she check the tongue and the throat to attempt to alleviate the obstruction, or should she call the nearest physician? Obviously, this depends on the institutional organization. The PRESCRIPTIVE approach would assign more responsibility to the nurse in a small rural hospital than to one in a medical center with interns and residents permanently located in the emergency room area.

At this point, the student of systems analysis should discover the most important reason for carrying out a formal study of present practices. Questioning the emergency room nurses and the director of the emergency room, both ardent supporters of systems analysis, revealed how such important issues are lacking formal definition. It has been up to the judgement of the emergency room nursing staff to follow the course of their choice. These nurses would, of course, welcome a carefully designed institutional policy describing in detail the preferred course of action in case of the four recognized nursing emergencies. (It was also surprising to find how well these emergencies can be defined).

The next issue is "EXAMINATION" of a patient. This may range from reading the referring physician's note requesting admission and stating the diagnosis to a case with no recent medical examination record seeking hospitalization. In this county-supported hospital the institution's policy is to admit all those requiring hospital care, so many patients come to our emergency room directly, without any medical referral. The nurse should decide which of the physicians should be called. As an example, in our hospital a fracture is treated one week by the general surgery resident and the next week by the orthopedic resident. (This is an institutional tradition to provide the residents in General Surgery with some experience in fracture therapy.) Our systems analysis team encountered here again the same problem to which we have become so accustomed over the years. Here is a very important decision made many times daily by our nurses, and our team had great difficulties in verbalizing the problem. We have lacked clear institutional policies separating departmental responsibilities. Who should see a gastric hemorrhage first? Or a cerebrovascular accident? Many of these issues required several meetings with the respective department heads to clarify the

preferred policy. The team developed great admiration for the emergency room nursing staff for their fine record of performance without supporting guidelines. Once, however, systems-thinking demonstrated the advantages of planned operations, we felt about these issues somewhat as we feel about the ancient Greek navigators. We admire their skills but prefer the compass and radar technology for our own safety.

Further development of the admission flowchart

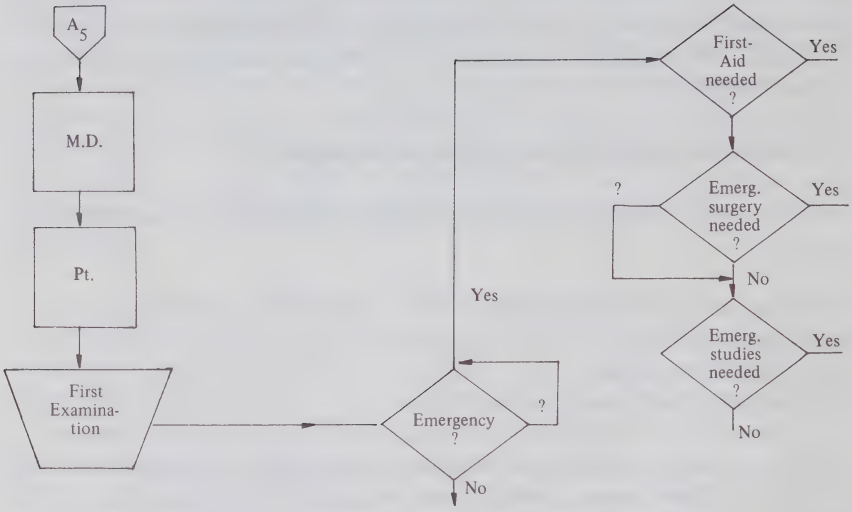
At this point, several major areas became discernable in the POST-A_4 event flow.

(1) Admission Clerk's function
(2) Nurse's function
(3) Physician's function
(4) Possibly other person's function.

The admission Clark's function is continued in workshop 2A, and the Nurse's function is developed in workshop #7. Therefore, let us pursue the analysis examining the physician's role. Since in this hospital, 17 hours of the day (4pm-9am) the surgical resident is in charge of the Emergency Room, let us examine the functions of this particular physician. (Flowchart A_6 on the next page.)

The surgical resident's first concern, after some minimal information acquisition, is to rule out the need for any immediate action. In terms of information technology, the physician should exercise a thought discipline and even if completely inapplicable, the dividing decision leading to or bypassing the "emergency loop" should be routinely included in the procedure. This normative approach calls for an ANSWER TO THE QUESTION: EMERGENCY DIAGNOSTIC OR THERAPEUTIC MEASURE REQUIRED? YES □ NO □. It should be emphasized here, that the development of a detailed flow chart is not an academic exercise. Once fully developed (a) the flowchart is our information map and any further discussion with other members of the planning team can refer to a specific point, as on an architect's draft, (b) non-clinical participants of the analysis can clearly understand the spatial and temporal relationships, and (c) the computer-compatible data input can be closely tailored to correspond in sequence to the flowchart. Therefore, as the architect's first sketch is the first representation of his efforts to express the needs of a client, the flowchart of the systems analysis is the first step toward building a computer-assisted system.

FLOWCHART
A_6



In a computerized clinical system the four basic steps, viz.,

(1) data acquisition
(2) data organization (diagnosis or prognosis)
(3) decision
(4) action (therapy)

are organized in a systematic fashion. The scope of data acquisition should include the pertinent data to enable the decision-maker to reach a SCIENTIFIC DECISION (cf. workshop #5). The flowchart dissects (EXPLICATION OF PROBLEM cf. Manual #2A). The basic facts leading to the decision must be (a) compiled, (b) included in the structured data input form, and (c) tested for completeness and acceptability by users of input forms. The first point of data acquisition is clearly stated in the above diagram. The surgeon, after a superficial data acquisition, enters the first decision point: ANY EMERGENCY PRESENT? This question requires a policy list of emergencies in order to control the content of the term EMERGENCY. In this institution, (cf. Workshop Manual #5) the following surgical emergencies proved to be important:

(1) Airway obstruction
(2) Acute severe hypoxia
(3) Shock
(4) Burns
(5) Coma
(6) Fracture
(7) Acute poisoning
(8) Open wound
(9) Acute pain and/or vomiting
(10) Bleeding
(11) Others

Although this list covered all of the emergencies during the 6 months' period of analysis, by assigning still another category, "others," we EXPLICATED emergencies, at least in a qualitative manner. The resident is expected to look through this list prior to making the first decision: EMERGENCY DIAGNOSTIC OR THERAPEUTIC MEASURE REQUIRED? NO □ YES □ . . . .

At this point we accomplished some other things perhaps not immediately apparent to the uninitiated:

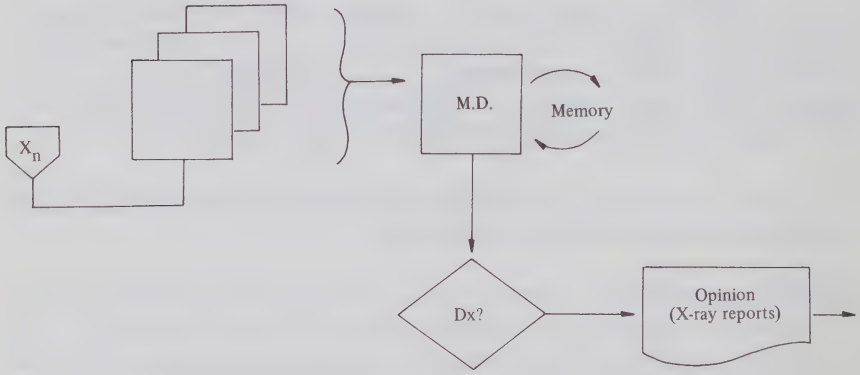
(a) We have recorded a medical judgement for the system as to the possible presence or obvious absence of any emergency. This could trigger further messages to the emergency room nurse and admission clerk guiding them in their own work. Presence of possible or definite problems requiring immediate action should alert the emergency room personnel. If a computer-terminal would make this decision accessible to those (nurse, clerk) who would benefit from this information, the computer could automatically make this available in the appropriate language;

(b) We have implanted a quality control point in our flowchart. The physician makes this decision every time he examines a patient in the emergency room, whether he is aware of it or not. By asking for the outcome of this decision we can not *monitor* the correctness of the diagnostic judgement. Another important medical aspect of flowcharting is to dissect out the decision point, develop the list of supporting data for this decision and study the feed-back loop.

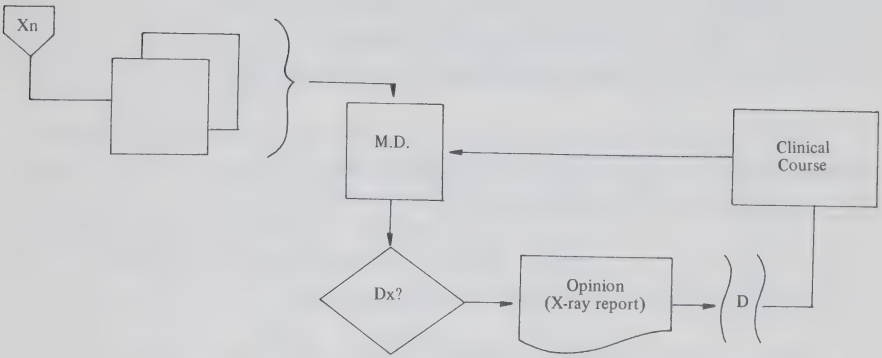
4. Concept of Feedback

Medicine can easily be traced through the recent coat of scientific

components to the traditional art of healing where judgement of the physician was the supreme measure of professional ability. Authority and personality were important ingredients. Introduction of statistical self-evaluation eliminated many ineffective drugs such as strychnine, and autopsies sharpened our diagnostic accuracy. Modern technology reshaped many of our practices, but, due to the lack of adequate data handling practices, we are still making many decisions with no inherent control measures. Let us examine more closely this important deficiency in medicine.



This is a typical design of a practitioner. For instance, the radiologist, in possession of the X-ray data and possibly some other clinical information, after comparing the case with his past experience, MEMORY, decides what the most probable diagnosis is, in his opinion, and issues the X-ray report, OPINION. The design clearly indicates to the student of information systems that this open-ended design is a religious rather than a scientific pattern. The physician of this design declares a dogma rather than submits a scientific evaluation. The following design is more acceptable to the systems analyst:



In this model the radiologist interpreting X-ray findings received the feedback (CLINICAL COURSE) validating the diagnostic prediction or showing the diagnostic error. Currently, the clinical pathological conferences and some follow-up effort as well as clinical research data provide sporadic feedback but not the organized regular evaluation proposed on this model. Systems analysis may be further extended in this direction, and every decision which may be later tested for correctness should be earmarked. At the systems design stage the feedback loop can be inserted whenever applicable, usually with minimal effort. Actually, in our own plans we provide the radiologist not only with the evaluation of his own diagnostic/prognostic statistics, but we place this in perspective by comparing these data with other radiologists' "batting averages." The educational potential of this feedback loop exceeds all our past experience. If this is done tactfully, assuring the clinician of confidential handling of data, the demonstration of errors is perhaps the most effective way toward self-improvement. This model, with some modifications, is readily changeable to feedback models for all professionals, an all-important feature of systems thinking.

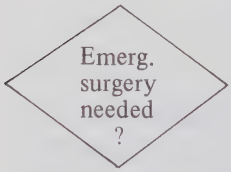
Further development of the emergency loop

Let us now further examine the outcomes of the decision.

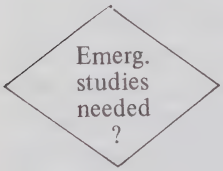
There are three possible outcomes recognized:

(a) no evidence for emergency
(b) emergency present
(c) emergency may be present

From a clinical point of view, (b) and (c) are treated together in the subsequent event flow. The first decision is now: "Is any therapy necessary prior to further data acquisition?" This is a *normative* approach again assigning highest priority to emergency therapy. If the outcome of this decision is a NO, the next decision is essentially closely related: "Is emergency surgery needed?" The answer to this question may be YES (e.g., obvious perforated viscus, or trauma requiring surgery). The patient should be prepared for surgery. This decision contains a gamut of messages to the emergency room nurse, to the admission clerk, to the family, to the operating room personnel, to the anesthesiology department, etc. Systems thinking sheds light on the many directions this decision should be disseminated.



If the answer is doubtful, i.e., the patient may be a candidate for emergency survery but definitive decision cannot be made at this time, the event flow leads to the next decision: "Any emergency studies needed?" This may be only clinical observation, or may cover consultations, X-ray or laboratory studies, in order to remove the uncertainty blocking the road to positive answers. If the answer to this question is YES, acquisition of these data will follow. This again will keep the other members of the emergency room team informed. Without any medical background, the admissions clerk can follow the chain of events.



If the answers to all three decisions comprising the EMERGENCY LOOP are negative, the flow of events requires recording of the decision that NO EMERGENCY IS PRESENT (so that the feedback loop can be established; e.g., if a case of abdominal pain is

admitted by the emergency room resident which later, on the ward, proves to be a perforated viscus, the diagnostic error should be reported by the system to the resident).

The Non-emergency Loop

Once the need for emergency therapy is ruled out, the next decision is implanted to move the procedure to the diagnostic decision as rapidly as possible. Therefore, the next decision is aimed at the surgical resident:

"Do you take full responsibility or do you want consultation?" The purpose of consultation may be:
(a) advice
(b) transfer of the case to another department.

The next decision is: Is hospitalization required? The purpose of this decision is to formalize a decision of great importance with conflicting factors. If medically possible to keep the patient out of the hospital, this should be evaluated critically now. If the surgical resident thinks that hospitalization is necessary, we continue the flowchart by formalizing the RATIONALE of this decision

5. **Operational Considerations**

The primary function of our Admissions Department is a *sorting* of patients into various groups, viz., those in need of medical advice or emergency treatment, and those requiring hospitalization. To achieve this aim in an optimized fashion, two conflicting considerations must be weighed against each other: (1) the admission procedure should be carried out efficiently and expeditiously, and (2) the data acquired should be adequate for the decisions shown on the flowchart. Obviously, in terms of time, the aim is to *minimize the admission time,* but also to *minimize the risk* of incorrect decisions. The second consideration is to reach a safe diagnosis. The data acquired (3, 15, etc.) should be adequate to reliably rule out the *emergency loop* (4 through 14), make decisions 5 and 6 in a logical fashion, and complete the functions to any of the off-page exit figures.

Systems analysis enabled us to design the flow diagram which is

the presentation of the various *possibilities*. There were, however, no data available as to the *probability* of the various alternate pathways. Actually, there were no good data available on any segment of the flow diagram. Therefore, the computer-oriented programme was planned in stages and the *first stage* was designed to build a *basic* computer-oriented *DATA BASE*. The questionnaire was formulated to accumulate primary data. Once this foundation was available, a more sophisticated second stage could be built on it.

The Initial Data Base

The questionnaire covered the following: (1) The time required for the admission procedure, (2) Is this admission "elective"? (3) Is life-saving emergency present? (4) Emergency studies or therapy needed during the admission procedure? (5) Consultation during admission, (6) Predictions by the admitting surgeon.

(a) "IS THIS AN OBVIOUS SURGERY CANDIDATE?" In addition to this, three other categories were offered on the questionnaire, viz., PROBABLE and POSSIBLE surgery candidate, or NO SURGERY EXPECTED.

(b) In all cases where the surgeon anticipated surgery after admission, the next question offered three categories: RIGHT AWAY, NEXT DAY, or AFTER WORK-UP.*

The completion of this brief form was no noticeable extra burden to the surgeons.

The initial data base revealed that about half of the patients were handled in less than an hour. Interestingly, the admission procedure became progressively slower during the first four months of the observation period. These differences proved statistically significant. Analysis of the data failed to show any apparent correlation between duration of admission and clinical diagnosis. Neither were consultations correlated with slower admissions. Hence, we concluded that factors other than the difficulty of diagnostic decisions must play a major role, e.g., availability of personnel, facilities, etc. The tendential changing pattern from month to month is interpreted as another evidence that the complexity of the diagnostic decisions is not the rate-limiting factor, since the patient material was

* Initially, a fourth category was also included I DON'T KNOW. Soon, we learned, however, that this was an easy way out of the burden of computer-oriented prediction and was used excessively. In the revised questionnaire, we excluded this category.

remarkably similar from month to month. Table 2 shows the summary of some other data.

The powerful, educational impact of monitoring decisions was revealed by the results obtained from the last part of the questionnaire, viz., the predictions: (a) is this case a surgical candidate? (Answer categories: OBVIOUS, PROBABLE, POSSIBLE, or NO CANDIDATE), and (b) when is surgery expected? (Answer categories: RIGHT AWAY, NEXT DAY, AFTER WORK-UP).

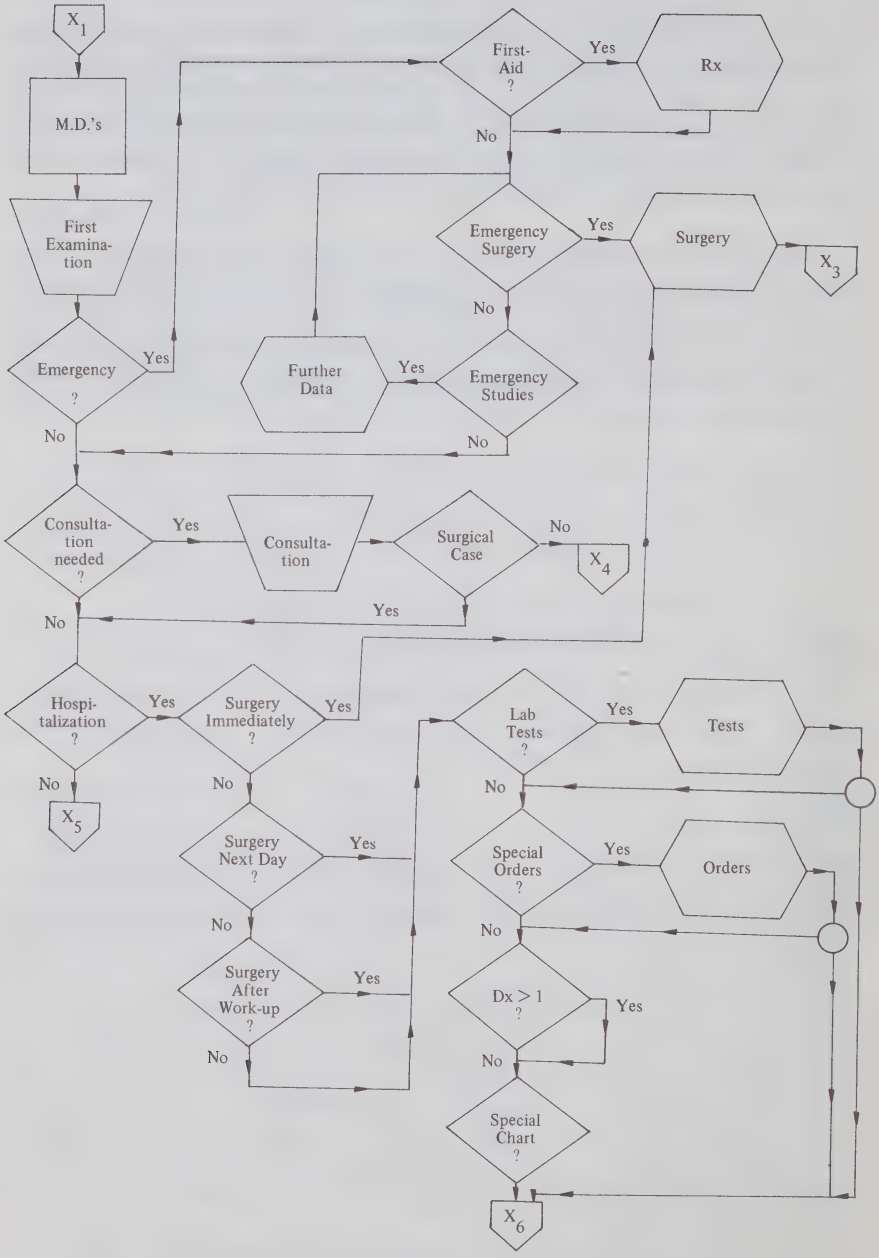
The prediction statistics shown on Table 3 were presented to the surgical staff and had an obvious impact on the quality of subsequent decisions, as evident from Table 3a. This experience was very encouraging, proving that by placing the data capturing system closer to the level of the decision system, we are able to monitor clinical activities effectively.

TABLE 1

MINUTES REQUIRED FOR COMPLETION OF ADMISSION PROCEDURES

Month	25% of patients processed within	50% of patients processed within	75% of patients processed within
February	32 minutes	55 minutes	87 minutes
March	45 minutes	75 minutes	113 minutes
April	53 minutes	76 minutes	127 minutes
May	55 minutes	87 minutes	142 minutes
June	45 minutes	66 minutes	104 minutes

FLOWCHART X_2



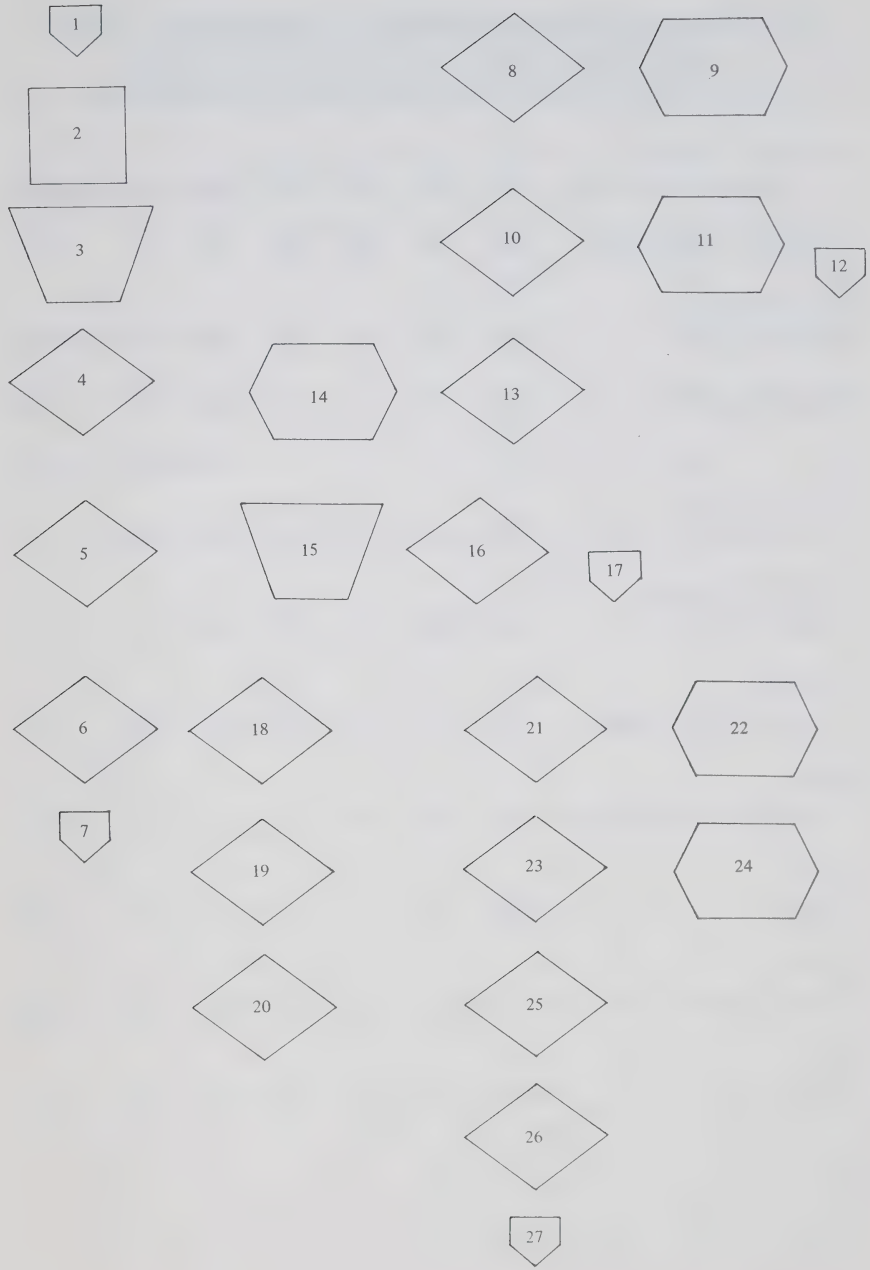

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TABLE 2

STATISTICAL DATA ON GENERAL SURGERY PATIENTS
ADMITTED IN SIX CONSECUTIVE MONTHS
TO THE E. J. MEYER MEMORIAL HOSPITAL

	Feb	Mar	Apr	May	June	July	Average
% Elective Admissions	47	37	40	36	38	51	41.5
% Non-elective Admissions	53	63	60	64	62	49	58.5
% Consultations	11	13	6	9	8	12	9.8
% of Life-saving Emergencies	2.6	3.5	6.7	2.1	2.7	4.3	3.6
% With an Airway Obstruction	0.0	0.0	2.0	0.7	0.6	0.7	0.7
% With a Massive Hemorrhage	1.7	1.4	0.0	0.0	0.0	0.0	0.5
% With Acute Severe Hypoxia	0.0.	0.0	0.0	0.7	0.0	0.8	0.2
% With Shock	0.9	1.4	4.7	0.0	2.0	1.4	1.9
% With a Large Wound	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% With Poisoning	0.0	0.7	0.0	0.7	0.0	1.4	0.5

TABLE 3

PREDICTION BY ADMITTING SURGEON

QUESTION: IS THIS CASE A SURGERY CANDIDATE?

Category Checked	Per cent Operated		
	April	May	June
Obvious Candidate	83	83	82
Probable Candidate	50	69	73
Possible Candidate	58	29	33

TABLE 3a

PREDICTION BY ADMITTING SURGEON — WHEN IS SURGERY EXPECTED?

Day of Surgery Admission Date is Day 1		Category Checked		
		Right Away	Next Day	After Work-up
APRIL	1	83%	5%	25%
	2	17%	71%	15%
	3	—	4%	10%
	4	—	5%	—
	5	—	15%	9%
	6	—	—	15%
	7	—	—	—
	8	—	—	—
	over	—	—	26%
MAY	1	92%	11%	5%
	2	8%	72%	—
	3	—	11%	40%
	4	—	—	—
	5	—	—	7%
	6	—	—	6%
	7	—	—	—
	8	—	—	10%
	over	—	—	32%
JUNE	1	56%	—	—
	2	33%	65%	9%
	3	—	6%	37%
	4	—	—	12%
	5	—	18%	6%
	6	—	4%	8%
	7	—	—	7%
	8	—	—	3%
	over	11%	7%	19%

Initial Data Base

For a period of four months, careful analysis of the data was carried out to establish the probability values for the model evolved during the systems analysis plan. These studies showed the following. (See page 158.)

6. Systems Design

The previous pages showed a partial practical demonstration of flowcharting the results of the systems analysis. Pursuing the example of the admission to the surgical department, as the details of the prevailing procedure became clear, the points of data loss and inefficiency also became quite striking. The emergency room nurse makes some important observations presently not recorded. Some of these may be such that the floor nurses could greatly benefit from the records.

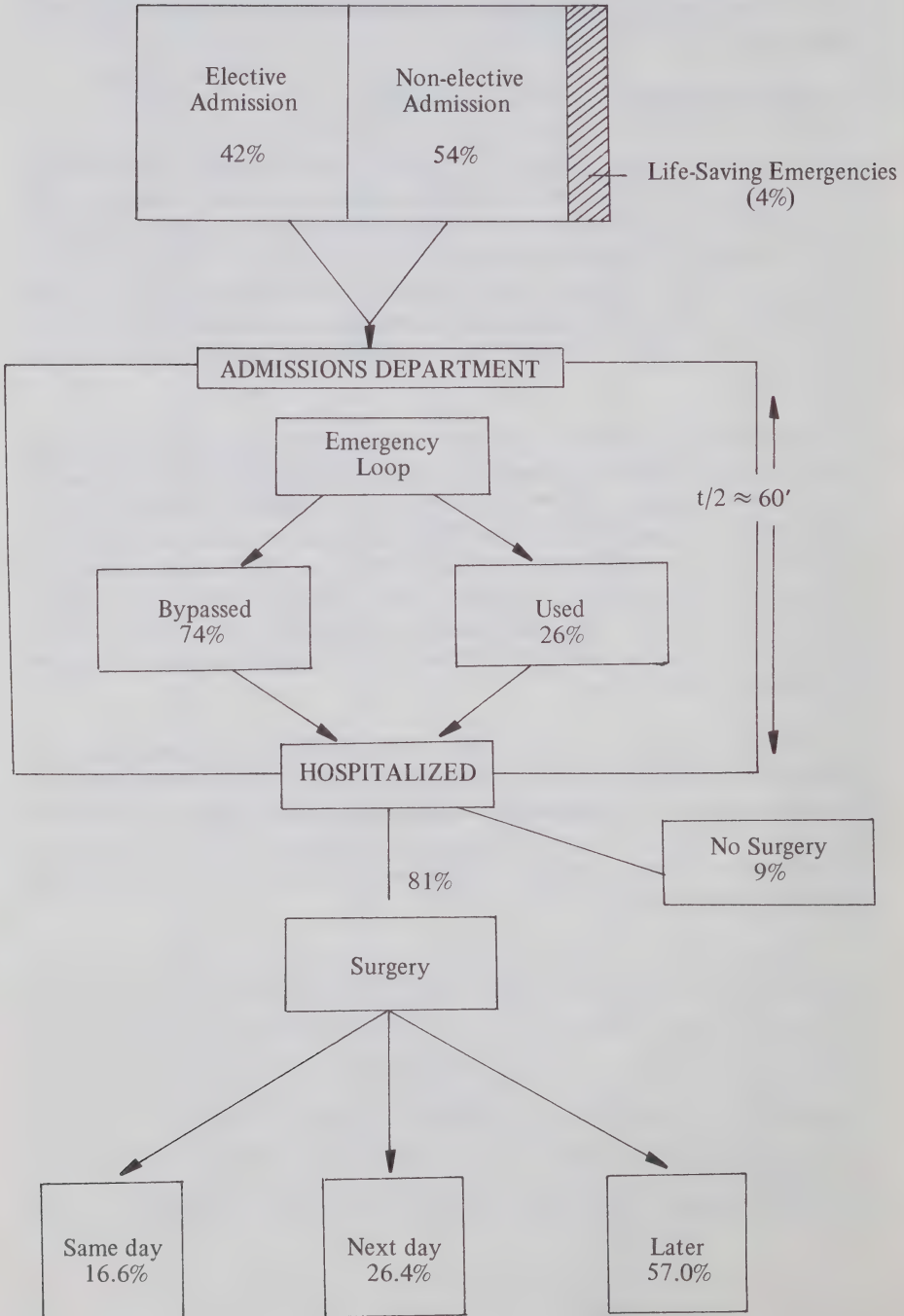
The Social Service may be of great assistance in certain circumstances, but the criteria for immediate notification first must be clearly defined. Also, the criteria for certain emergency procedures need careful definition. For instance, senior staff members mentioned that a spinal tap should never be performed during the admission procedure. If urgent, the patient should be rapidly processed through the admissions department and the lumbar puncture should be done on the ward. This approach can, of course, be built into the system.

Systems design is a joint effort between health professionals and information scientists. The primary planning is clinical; the purpose is optimization of diagnostic and therapeutic plans to achieve maximal efficiency in minimal time. At variance with the operation by evolution, systems design is a *de novo* planning with all available scientific and technical tools.

Information recording is the central issue in the planning. If all health professionals accurately record the data, if the records guide the logic of the record user, if the system provides support in form of statistical summary of past experience, we can expect optimal performance by the fully informed users of the system. If the user knows what the system can provide, the judgement is as good as the individual is able to make. The system should keep all participants at the highest level of cognizance in order to close the gap between potential optimal decisions and actual decisions suboptimal due to

FIGURE 4.

Initial Surgical Data Base



less than maximal cognizance.

Data acquisition design closely follows the flowchart. This process is often referred to as DOCUMENTATION of the flowchart. This is a particularly stimulating part, with the opportunity given to the senior staff to design NORMATIVE rules for the house staff. The residents' objective is to gather practical experience. In a non-system environment, the resident is forced into numerous decisions without a formal set of institutional policies. Learning without such guidelines is inviting errors, and gathering experience through mistakes is a method tolerated by necessity but which can be terminated by a tightly monitored system with lists of data for all decisions and catalogue of all decisions.

The manual 2A will illustrate how the practical documentation of a flowchart is carried out to make the information system technically computer-compatible. It is more important, however, to make the system intellectually a continuous, cohesive thought flow from human to machine and back to human, using the machine only as a vast memory robot under full control of the clinicians and other users.

7. Summary Discussion

Systems thinking is essentially an integration of modern science and technology with clinical medicine. The purpose is to exploit modern sciences for better patient care. Systems thinking is offered to enhance reasoning in medical thinking. For this purpose, the problems have to be formalized. Formal statements are necessary for rational decisions, use of formal logic, statistics, data banks and scientific evidence. Admittedly, many clinical decisions can be equally good without such a supporting body of scientific evidence. We would not even claim that scientifically correct decisions are always the best decisions. Intuitive decisions occasionally may be better. But on a statistical basis, we are convinced that rational decisions using a vast body of past experience will prove far better. Also, the non-system may appear more individualized, both in terms of patients and health professionals. It is, however, an inevitable trend in our evolving society that while our resources are limited, demands for services are steadily increasing. A non-system is a luxury of the past, rapidly becoming a national sin in the future.

Appendix C

GLOSSARY

APPENDIX C

Glossary

The digital computer system with potential applications in "computer medicine" generally consists of a *central processing unit,* the "heart," with built-in magnetic core storage, and arithmetic and logic systems. This system is surrounded by *Input, Output,* and facilities for data conversion with various types of external high character capacity storage.

Access, Random: (1) Pertaining to the process of obtaining information from or placing information into storage where the time required for such access is independent of the location of the information most recently obtained or placed in storage. (2) Pertaining to device in which random access, as defined in definition (1), can be achieved (q.v. photo optical mass memory, data cell, and magnetic disk).

Access, Serial: Pertaining to the sequential process of searching for or entering information into storage such as on a magnetic tape.

Acoustic Coupler: Device which converts an electrical signal (analogue or digital) into an audible tone which can then be transmitted by an ordinary telephone. A second coupler at the receiving station passes the reconverted signal to the computer.

Alphameric Characters (alphanumeric): Characters which may be either letters of the alphabet, numerical digits, or certain special symbols.

Analogue: The representation of numerical quantities by means of continuous physical variables; e.g., rotation, voltage, or resistance.

Audit: Step by step tracing of data from output to input source in order to verify accuracy.

Batch: Technique by which items to be processed must be coded and collected into groups prior to processing.

Binary: A characteristic, property, or condition in which there are but two possible states; e.g., the binary number system using 2 as its base and using only the digits zero (0) and one (1).

Bit: (1) An abbreviation of *binary digit*. (2) A single character in a binary number. (3) A single pulse in a group of pulses. (4) A unit of information capacity of a storage device.

Byte: (1) Generic term to indicate a set of consecutive binary digits; e.g., an 8-bit or 6-bit byte. (2) A group of binary digits usually operated upon as a unit.

Central Processing Unit: Contains the main storage (usually core), arithmetic unit, and special register groups.

Character: (1) One symbol of a set of elementary symbols such as those corresponding to the keys on a typewriter. The symbols usually include the decimal digits 0 through 9, the letters A through Z, punctuation marks, operation symbols, and any other single symbols which a computer may read, store, or write. (2) The electrical, magnetic, or mechanical profile used to represent a character in a computer, and in its various storage and peripheral devices. A character may be represented by a group of other elementary marks such as bits or pulses.

Check, Validity: A check based upon known limits or upon given information or computer results; e.g., a calendar month will not be numbered greater than 12, and a week does not have more than 168 hours.

Code: (1) A system of symbols for meaningful communication. (2) A system of symbols for representing data or *instructions* in a computer or a tabulating machine. (3) To translate a problem into computer readable forms.

Collate: To merge two or more ordered sets of data or cards into one or more ordered sets without changing the original orders of the merged sets.

Compile: Computer translation of a *source language* into *machine language* (see code) by used appropriate programmes.

Compiler: A special computer programme for converting a *source language* into *machine language.*

Computer, Analogue: A computer which represents measurable variables by electrical or other analogies. An analogue computer measures continuously whereas a digital computer counts discretely.

Computer, Digital: A computer which processes information represented by numbers as compared with an *analogue computer* for continuous data. More specifically, it is a device for performing sequences of arithmetic and logical operations.

Conversational Mode: *Real time* interactive process between user and computer where the latter is programmed to react to interrogations and statements of the user, normally through a teletypewriter or a *video display* and keyboard.

Copy, Hard: A printed copy of machine output; e.g., printed reports, listings, documents, and summaries.

Data Bank: A collection of files of information all of which are in machine readable form.

Data Cell: A storage device which houses strips of magnetic film any one of which can be *randomly accessed.* Can store up to 3,200,000,000 *bits* of information.

Data Line: Telephone circuit, teletypewriter circuit, microwave, or other channel over which *digital* or *analogue* data is transmitted.

Debug: (1) To locate and correct any errors in a computer programme. (2) To detect and correct malfunctions in the computer system.

Density: The number of *bytes* per inch stored on magnetic tape. Standard densities are 200, 556, 800 and 1,600 *bytes* per inch.

Digit, Binary: A numeral in the *binary* scale of notation. This digit may be zero (0), or one (1). It may be equivalent to an on or off condition, a yes or a no. Often abbreviated to *bit.*

Digit, Check: One or more redundant digits carried along with a machine byte as a self-checking or error-detecting code to detect malfunctions of equipment in data transfer operations.

Digitize: To convert an instantaneous analogue measurement of a physical variable into a numerical value.

Disk, Magnetic: See Magnetic Disk.

Edit: To rearrange data or information either manually or by processes inherent in computer operation.

Equipment, Input/Output: Equipment used for transferring information in or out of a computer; such as teleprinter, video display, line printer and so forth.

Equipment, Peripheral: Auxiliary machines which may be placed under the control of the central processing unit and which are usually input/output equipment and converters.

File: A collection of records; an organized collection of information directed toward some purpose.

File, Master: A *file* of semipermanent reference information which is usually up-dated periodically.

Hardware: Physical equipment or devices forming a computer and peripheral equipment. Contrast with *software.*

Header: The first section of a record or file which identifies the type and format and other pertinent information relating to the file.

Hollerith: A widely used system of encoding *alphanumeric* information onto cards, hence hollerith cards is synonymous with punch cards.

Index Medicus: A monthly (with annual cumulation) printed listing of articles in over 2,400 medical journals, by subject and author, produced by the National Library of Medicine from *MEDLARS* tapes.

COMMUNITY DEVELOPMENT AND HEALTH CARE

Report of talk and discussion by Mr. D. G. Emslie, Commissioner of City Development, City of Toronto, to the Sub-committee on Community Health Care, on November 27th, 1969.

Mr. Emslie said he had approached the invitation with some confusion and also trepidation since he was a "dedicated generalist" and did not have extensive knowledge in the field of health care. He said he had read with interest, statements by the C.M.A. relating to the need for improved health services, particularly in medically disadvantaged areas and in "ghettos located in the shadow of major teaching hospitals."

He felt some lessons could be learned from the experience in one predominantly ethnic community (Kensington) where the community had shown a very negative reaction to the Toronto Western Hospital and its services. The community obviously felt threatened by the hospital, and the "city" was cutting into the life of the community. He felt one reason for this situation had been a lack of communication. There was a feeling that the hospital personnel was not there to take care of the people in the area; there were language difficulties and the community felt that the land purchased by the university for student housing development should have been used for development of a community facility (e.g., a neighbourhood school). Subsequently the hospital had attempted to rectify its image but the community had not co-operated too well. He said in a situation like this one could not expect that there would necessarily be reason or logic, but attempts have to be made to achieve understanding.

Mr. Emslie said he had frequently wondered what happened to the people in underprivileged areas where one sees children going out in the morning without an adequate breakfast, sometimes because the mothers are working to support the family, or in other instances because they have been raised like this and do not know how to cook a meal. He said many of these families never sit down for a meal together. This illustrates a social problem but also a medical problem. This sort of living condition must contribute to the malaise of the people.

He felt there was an interrelationship – people are poor, not well educated and not able to hold good jobs; therefore they tend to be in poor health. They are slow mentally and lack energy because of poor health and inadequate nutrition and consequently are unable to obtain and hold good jobs. He was convinced that a team approach was necessary to serve adequately the needs of communities. Social work and physical and mental health care have to be integrated together and work as a team if we are to achieve real improvements.

Mr. Emslie felt public health authorities had failed badly in concerning themselves with the housing aspect of the environment. It did not contribute to the health of the people, he said, if they lived in dwellings that are infested by rats, cannot be heated and are generally substandard. In the United Kingdom and the U.S.A., he said, there has been a great concentration by people in the medical field on aspects of housing standards and attempts to improve them. This, he said, is also taking place in some parts of Canada and Ontario. He said building inspectors were now beginning to enforce standards of housing but up until the last few years there were only about three municipalities in Ontario that had this type of enforcement for health reasons. This, he said, could be an area of responsibility for any medical group.

He suggested there was room for pilot programmes in Toronto. His department and the City generally would be pleased to work with anyone to set up such a project. Mr. Emslie suggested a pilot project should have a multi-disciplinary approach. He referred to a programme carried out in Hamilton in a community where many people had been relocated. This programme attempted to deal with social and economic problems and was conducted by a team that included psychologists, social workers, home economists and others to deal with social, budgeting and related problems. He said medical care would be only one component of overall community development programmes.

Regarding physical accommodation, Mr. Emslie said that the City of Toronto could probably provide this since in each redevelopment area there is an on-site office. One of the facets of urban renewal, he said, was that the City acquires properties and one of these properties could be assigned to temporary use. He was not certain what type of budget could be set by the City for such a project and just how it would be financed, but he felt that a term of four to five years duration could be offered. This would provide some stability. He personally felt that if the City had caused a disruption in a

specific area, the City should provide facilities and resources to rectify the situation, but this need not go on forever. The community eventually should take over the facility.

Dr. Fallis asked if the Sub-committee could be provided with copies of the report covering the project in Hamilton to which Mr. Emslie had referred. Mr. Emslie said this could be done but pointed out that the report did not prove any definitive conclusions.

Mr. Emslie described some of the planning and proposed development in Toronto. He said at present several studies were being conducted in the east end of Toronto and attempts were being made to get away from some of the conventional ideas in urban renewal. Instead of destroying an area and rebuilding it, which usually results in an almost complete population change, attempts would probably be made to preserve properties rather than to demolish and rebuild. Also, the trend now is to consider and evaluate much larger areas and correct faults in small pockets within the area rather than designating specific areas for urban renewal.

In response to a question as to the City Development Department's terms of reference and authority, Mr. Emslie said his department had two major areas of responsibility:

(1) In the field of public involvement (urban renewal), and

(2) development generally (e.g., private).

A resolution passed by City Council defined the function of his department as "overseeing all phases of urban renewal and to negotiate with other levels of governments and other agencies." He said the department initiated all types of studies. Any recommendations relating to urban renewal must be approved by the City Council, by Metro and appropriate provincial and federal authorities.

Mr. Emslie described proposed development for high-income families; the other, a joint development by the City and the Province which would include different types of residential dwellings as well as commercial property. To his knowledge neither development included any planning for health care. In contrast to this, many discussions had been held with the school board to ensure provision of educational facilities for children resident in the new areas.

Within the developments there would be identifiable areas that

are primarily residential. It was doubtful whether a hospital would be necessary in the community since existing large hospitals were in close proximity, but certain health care facilities would be required. Mr. Emslie said the trend was toward a great deal of multiple use of buildings and facilities. He said in some instances communities were planned where one building contained offices, schools, and apartments on different floors.

Mr. Emslie said that at the moment no one in the City Government was specifically responsible for planning health facilities in new developments. He said most developments are and will be private, and generally private developers were interested in providing services only if they are necessary to rent dwellings. Regulations provided that any new development must consult the Board of Education if there is any change in zoning. The Board can comment on whether schools are adequate and demand that facilities be provided. The Sub-committee suggested that, if legislation can be passed to provide for parking and schools, then it should also be possible to legislate for public health facilities.

Dr. Fallis thanked Mr. Emslie on behalf of the Sub-committee.

EMERGENCY AND URGENT CALL SERVICES

1. Increased insurance coverage, population mobility, and some weakening of the tenured doctor-patient relationship have contributed to the conviction that public sector support may be as logically expected for medical emergencies as for police and fire protection services.

2. A regional approach to the organization of medical emergency services is needed to prevent gaps and poor co-ordination.

3. The backbone of a good disaster service is a good regionally planned, day to day emergency service.

4. Particularly in larger centres where the number of casualties in an emergency department may be great, non-emergency "urgent" calls must be triangled off from "true" emergencies if the latter are to be managed with maximum salvage.

5. In planning the components for the delivery of *emergency* medical services, it is important to identify responsible authority backed up by adequate community organization, and to examine communications, personnel, transportation, and first aid and hospital facilities.

6. Planning the components for the delivery of *urgent* medical services is based on the assumption that such calls are best managed by the patient's personal physician or direct substitute. Community planning must therefore be centred on efforts of the local medical societies and district hospital staffs and in general should provide for urgent telephone calls and urgent personal visits. Satisfaction of these requests may require city or area wide telephone rosters with duty doctors on call and may require special arrangements for "stat clinics" by day or in the evenings.

7. Public sector support will be required to fill in gaps identified by a regional examination of emergency and urgent services on the basis of progressive patient care. Improvement will result if acceptable standards are developed for personnel and equipment related to ambulance, communications, and receiving centres. Public sector support may also be needed for encouragement of

regional rosters of telephone-alert physicians, and registers of instructions for patients and lists of personnel and facilities.

Dr. F. Fallis
May, 1969

COMPONENTS OF COMMUNITY HEALTH CARE

"The ultimate goal of studies regarding the organization and operation of health services should be the improved availability of necessary services, adequacy of standards, and efficiency. The real challenge here is preserving the integrity of care for the individual in the face of advancing specialization . . .

"In this regard (the health services needs of the community) the role of the patient is important. His responsibility for his own health and his ability to participate in his own care are significant aspects of the changing health services picture. Today the patient is treated by health personnel as a passive object. A good descriptive study of the present role of patients and the variations and dynamics of this role is much needed. Corollaries of such a study might include studies of the role of various professional groups in health care." – From "The State of the Art in Health Services Research" by Dr. Thomas McCarthy.

"The answer to the (first) question which I posed: what are the health needs of the Canadian people? must be a qualified one. From available sources it would appear that there are vast unmet health needs afflicting the Canadian population. The research studies from which these findings are drawn are probably too few in number to be valid, and it is also apparent that the use of demand figures (visits to doctors, use of hospital facilities, etc.) does not provide an accurate and representative picture of the health needs of the nation." – Robin F. Badgley, "The Health Needs of the People: Canada's Medical Care Plan" – part of a panel participation at the Canadian Nurses' Association, July 8, 1968, Saskatoon.

My own view is that a delivery of health care will always contain many personal and subjective elements. The role of government cannot be to take over the whole operation, but rather to insure that a sanitary baseline of acceptable service is available to all citizens at reasonable cost. Beyond this base level many doctors will strive to deliver an extra ingredient which can only be fully enjoyed by patients who themselves take their share of the responsibility for "tenure" and for extra excellence in available and comprehensive care.

The following are suggested as fundamental elements in the basic care of any patient. In a study of community health services, the team, and other arrangements for delivery, one would have to be sure that all aspects of basic care were covered from the patient's point of view.

1. Health and Habilitation

    (a) Security
    (b) Vocational Training and Advice
    (c) Sex Education and Social Counselling
    (d) Rest and Leisure (Creativity, artistic expression)
    (e) Ethical Problems

2. Health Maintenance

    (a) Environmental Control
    (b) Periodic Examinations
    (c) Preventive Medicine
    (d) Reassurance

3. "Therapeutic" Medicine

    (a) Call for Help
        i. Emergencies
        ii. Urgent
        iii. Routine
        iv. Unexpressed calls (needs)

    (b) Transportation
    (c) Identification
        i. Of Patient
        ii. Of Problem

    (d) Investigation
    (e) Appreciation and Formulation (Diagnosis)
    (f) Treatment Plan and Responsibility (Treatment)
    (g) Rehabilitation and Follow-up
    (h) Patients as Data

4. Elements of Supply

    (a) Patient Responsibility
    (b) The Community (Balanced Expectation)

(c) Manpower
   i. Doctors
   ii. Education
   iii. Fee Schedule
   iv. Nurses, Associates, and Auxiliaries

(d) Facilities
   i. Offices
   ii. Hospitals

(e) Role of Government

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May, 1969